No. 14-1520

In the Supreme Court of the United States

STRYKER CORPORATION, ET AL., PETITIONERS

v.

ZIMMER, INC., ET AL.

ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

SUPPLEMENTAL APPENDIX

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PETITION FOR A WRIT OF CERTIORARI FILED: JUNE 22, 2015
CERTIORARI GRANTED: OCTOBER 19, 2015

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The United States of America

The Commissioner of Patents and Trademarks

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

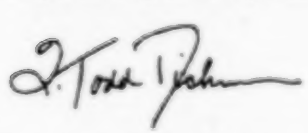
Therefore, this

United States Patent

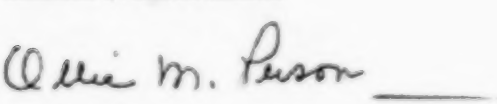
Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.



Commissioner of Patents and Trademarks



NOTICE

If the application for this patent was filed on or after December 12, 1980, maintenance fees are due three years and six months, seven years and six months, and eleven years and six months after the date of this grant, or within a grace period of six months thereafter upon payment of a surcharge as provided by law. The amount, number and timing of the maintenance fees required may be changed by law or regulation. Unless payment of the applicable maintenance fee is received in the Patent and Trademark Office on or before the date the fee is due or within a grace period of six months thereafter, the patent will expire as of the end of such grace period.

US006022329A

United States Patent [19]

Arnett et al.

[11] Patent Number: 6,022,329

[45] Date of Patent: *Feb. 8, 2000

[54] **IRRIGATION HANDPIECE WITH BUILT IN PULSING PUMP**

[75] Inventors: **Jeffery D. Arnett**, Kalamazoo; **Nicholas V. Gately**, Portage; **David H. Grulke**, Battle Creek; **Ruth A. Hibben**, Saline; **James L. Sertic**, Kalamazoo, all of Mich.

[73] Assignee: **Stryker Corporation**, Kalamazoo, Mich.

[*] Notice: This patent is subject to a terminal disclaimer.

[21] Appl. No.: **09/009,657**

[22] Filed: **Jan. 20, 1998**

Related U.S. Application Data

[63] Continuation of application No. 08/559,133, Nov. 17, 1995, Pat. No. 5,718,668, which is a continuation of application No. 08/049,144, Apr. 19, 1993, Pat. No. 5,470,305.

[51] Int. Cl.[7] **A61M 3/00**

[52] U.S. Cl. **601/155**; 239/526; 239/373; 604/35; 604/153; 604/43; 601/161

[58] Field of Search ..... 601/154, 155, 601/160, 161, 162, 163, 165; 604/33, 35, 39, 43, 153; 128/DIG. 10, DIG. 12; 433/80; 74/523, 537, 538, 489; 200/522, 332.2, 293.1; 239/525, 526, 373; 222/333

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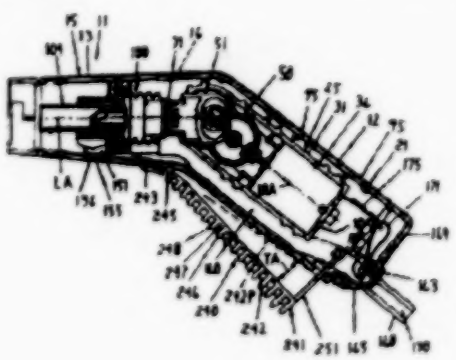
Primary Examiner—Danton D. DeMille

Attorney, Agent, or Firm—Flynn, Thiel, Boutell & Tanis, P.C.

[57] **ABSTRACT**

A pulsed irrigation handpiece comprises a pulsed irrigation liquid outlet for applying liquid pulses to a surgical site, a pump unit reciprocatingly driveable for pumping pulses of irrigation liquid through the outlet, an electric powered drive unit for reciprocatingly driving the pump unit, and a housing containing the pump and drive units. A irrigation inlet hose leads from the pump unit out of the handpiece housing and is connectable to a remote irrigation liquid source. An irrigation inlet hose adjacent the remote end thereof and electric conductors extending along the irrigation inlet hose transfer electric power from the supply unit to the drive unit in the handpiece. Removable tips are alternatively removably attachable to the irrigation liquid outlet adjacent the front end of the handpiece.

10 Claims, 17 Drawing Sheets



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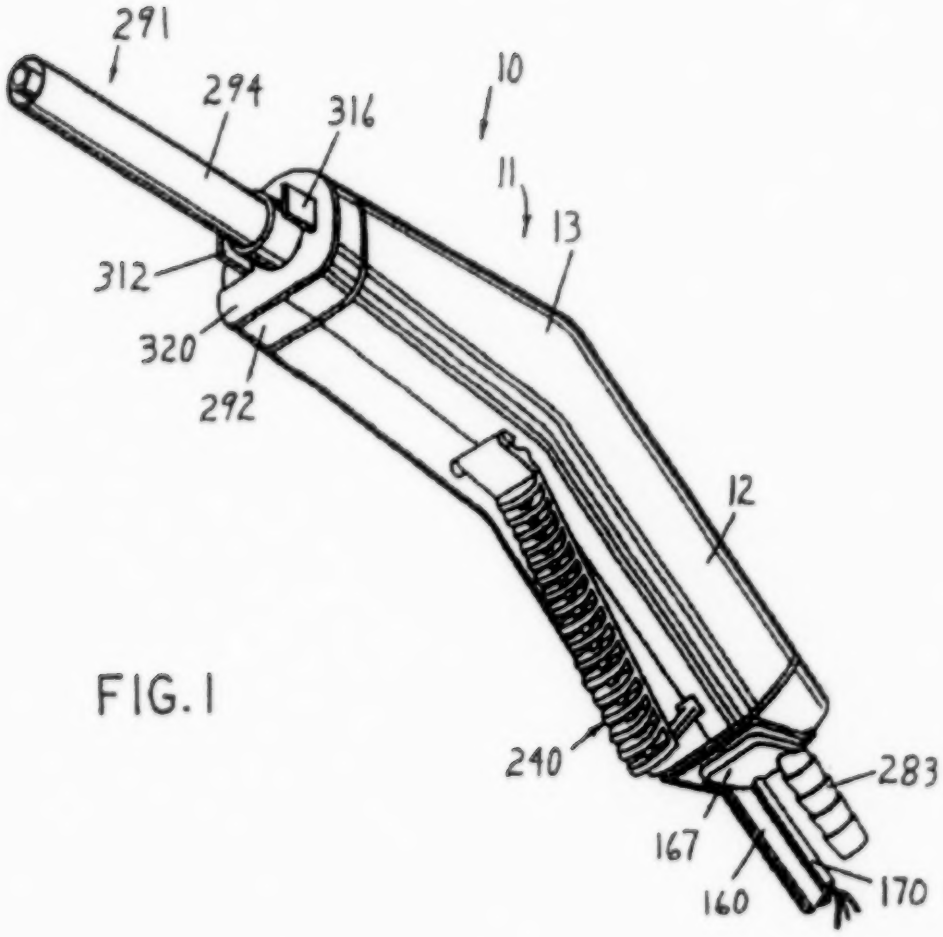

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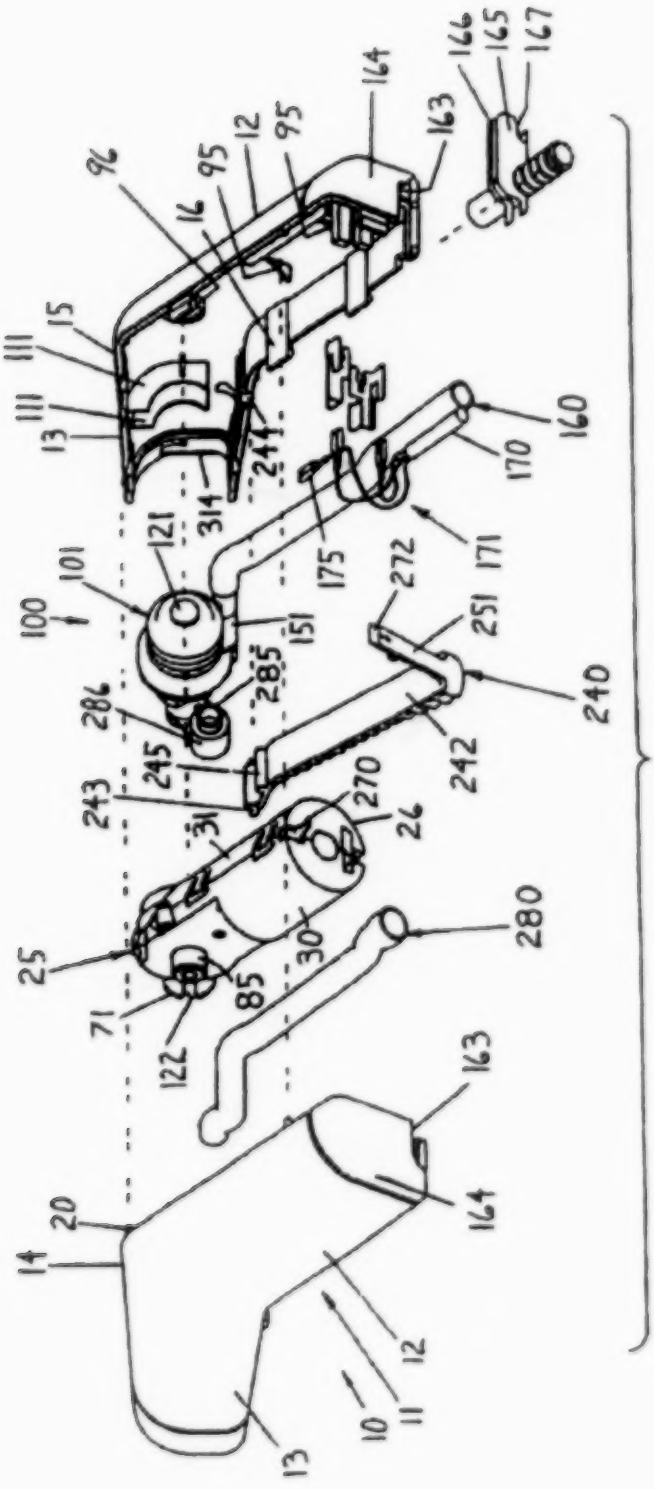
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FIG. 2

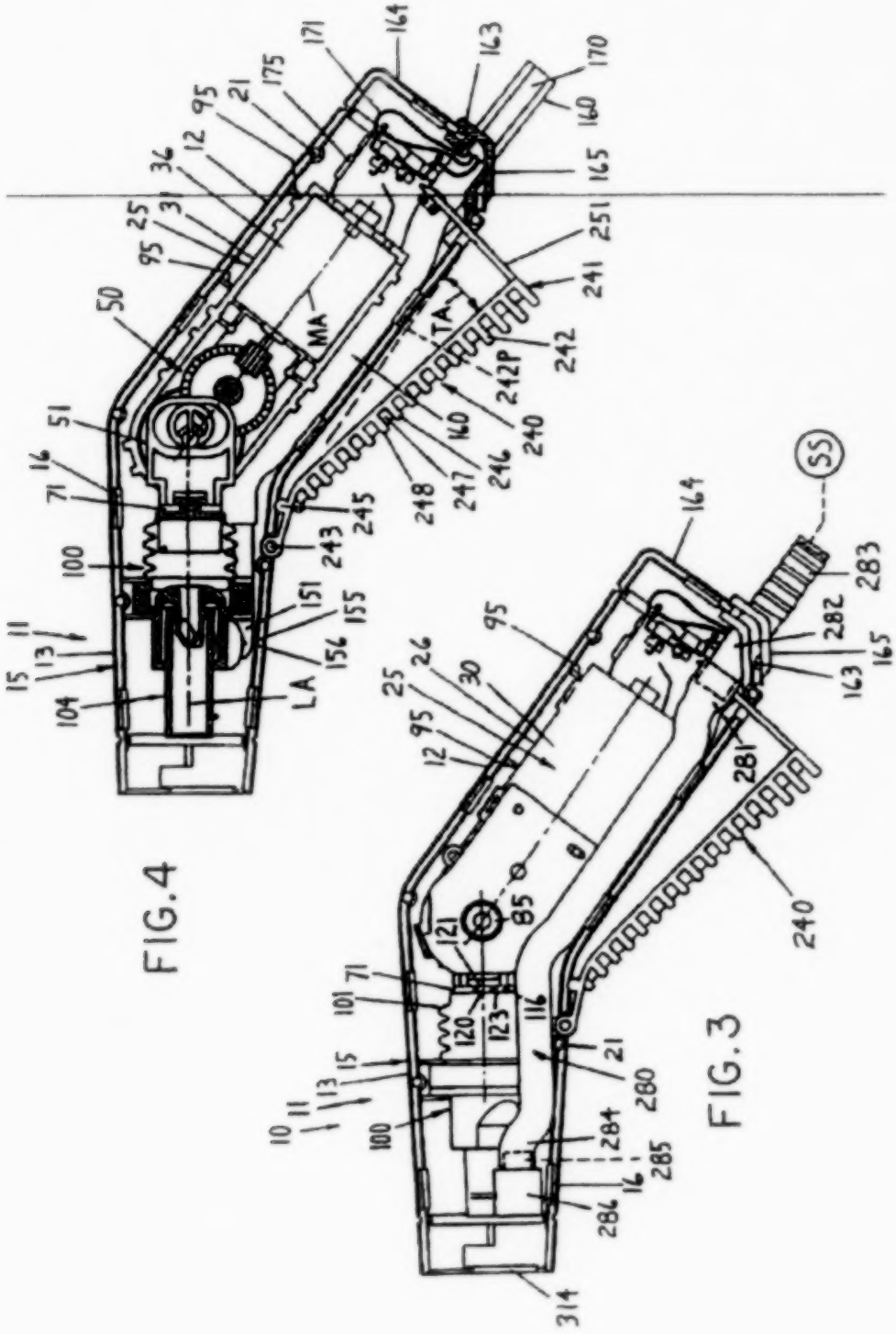
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FIG. 4

FIG. 3

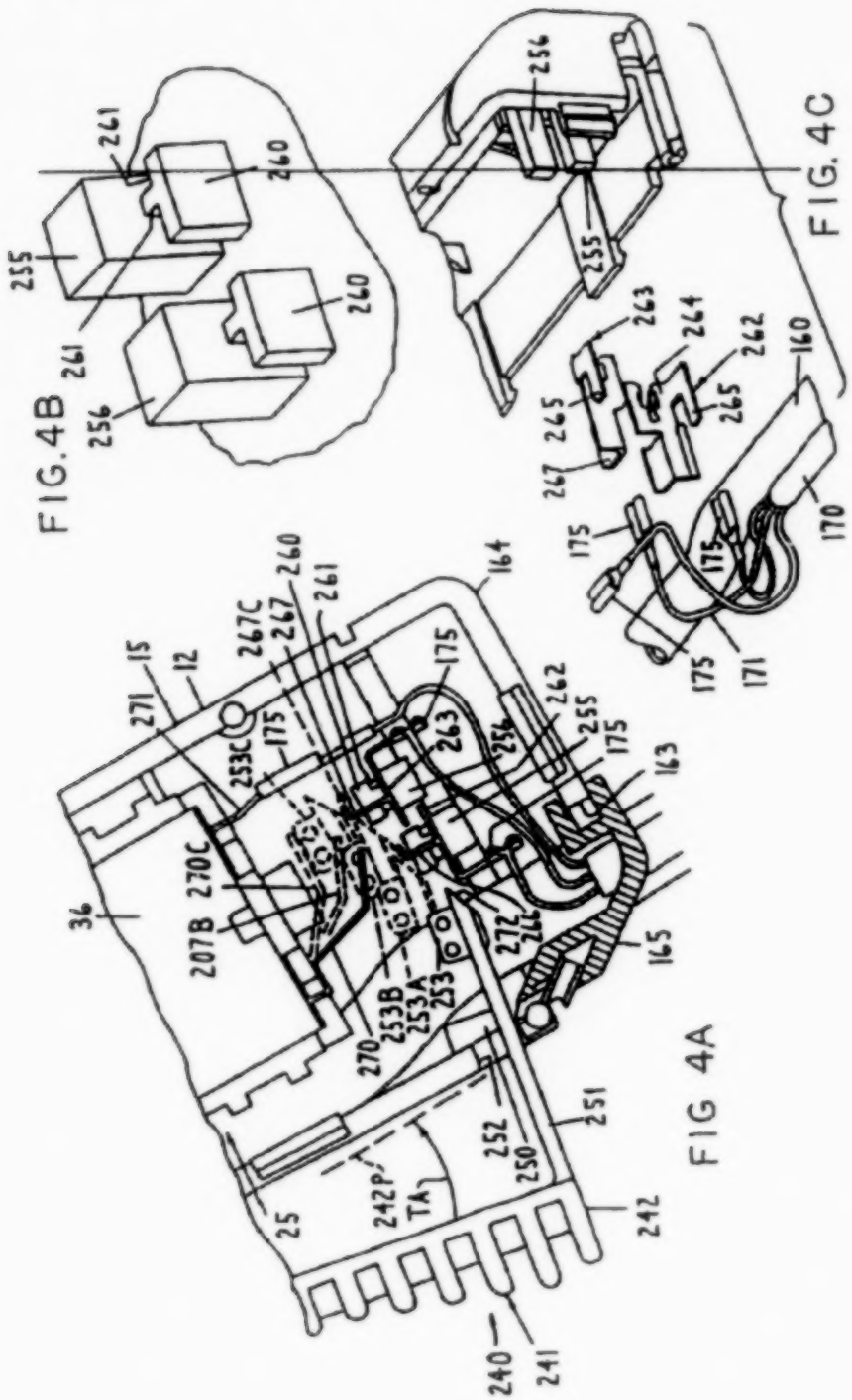
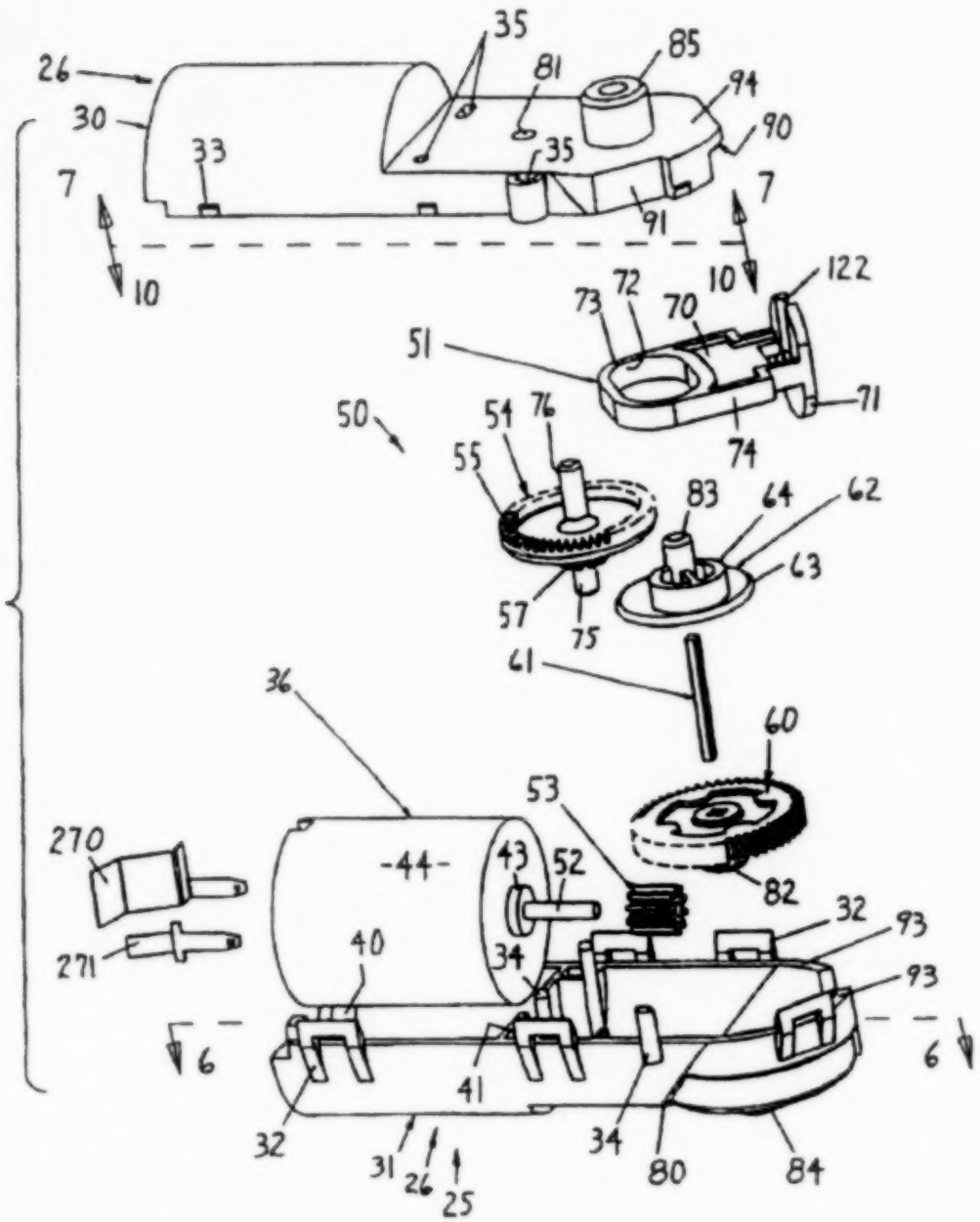


FIG. 4A
FIG. 4B
FIG. 4C

FIG. 5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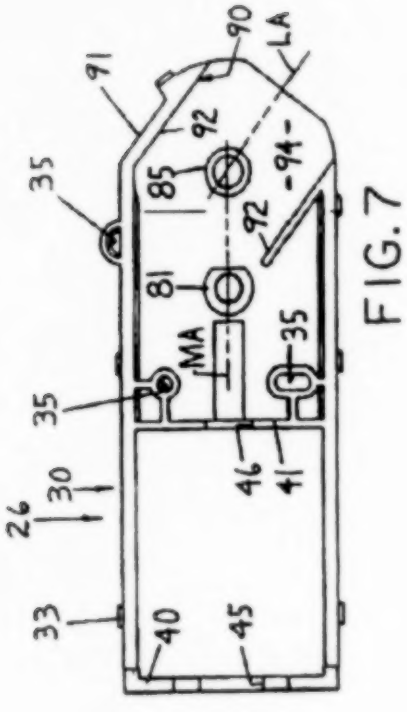

FIG. 7

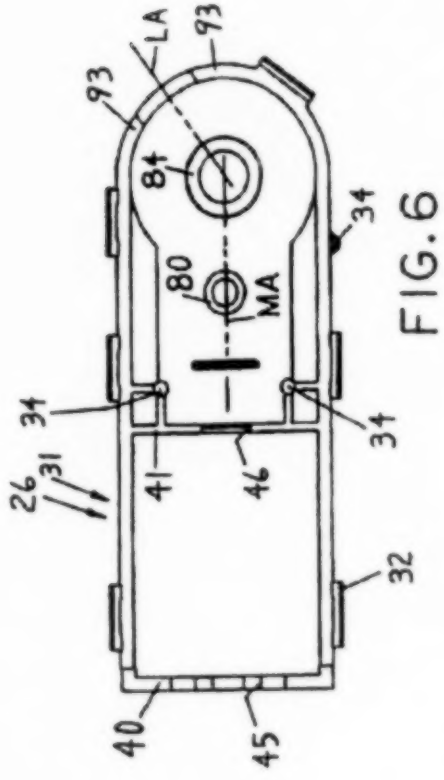

FIG. 6

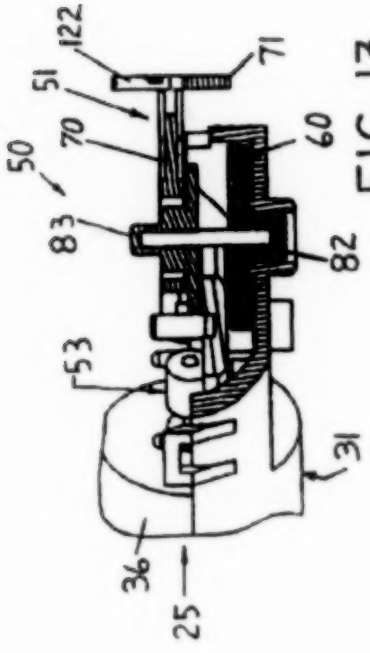

FIG. 13

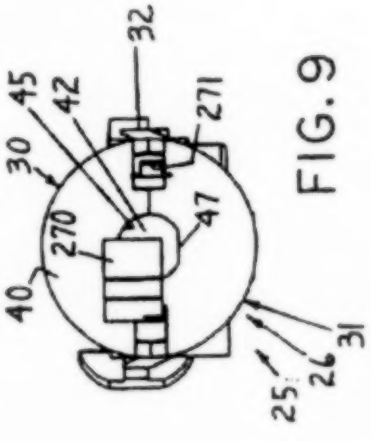

FIG. 9

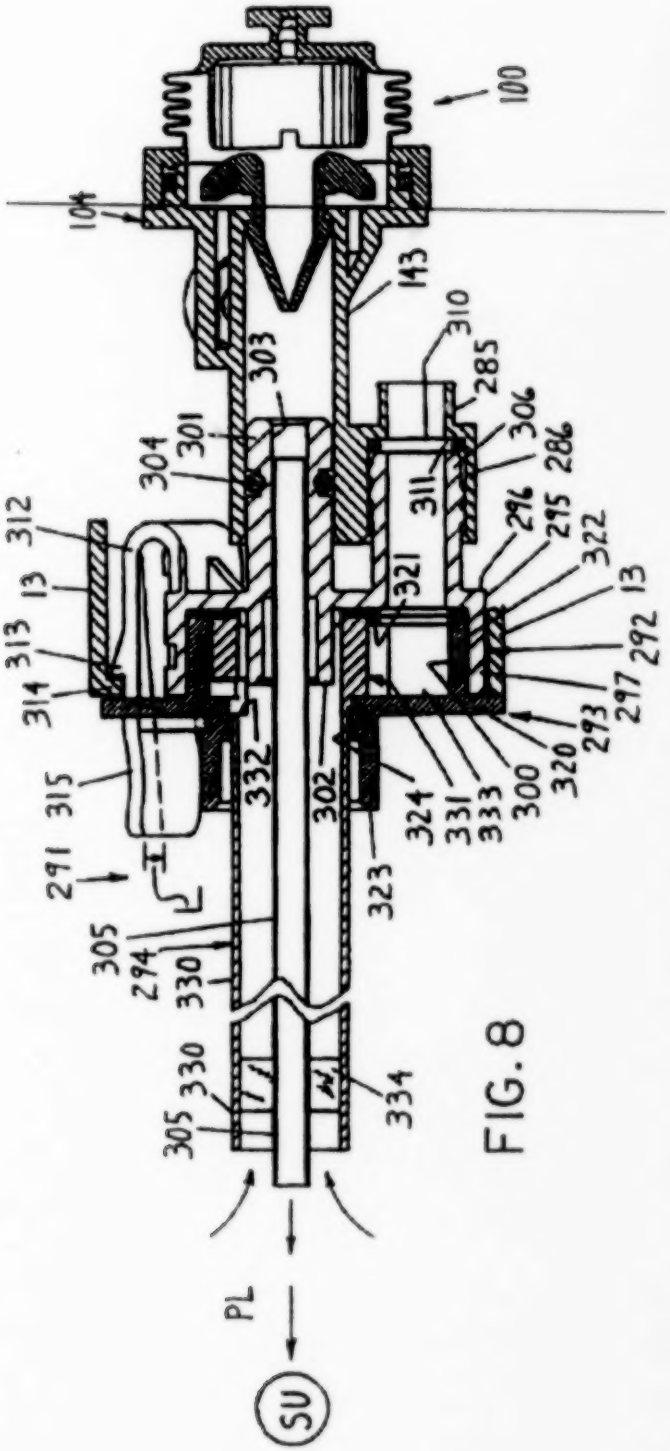
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FIG. 8

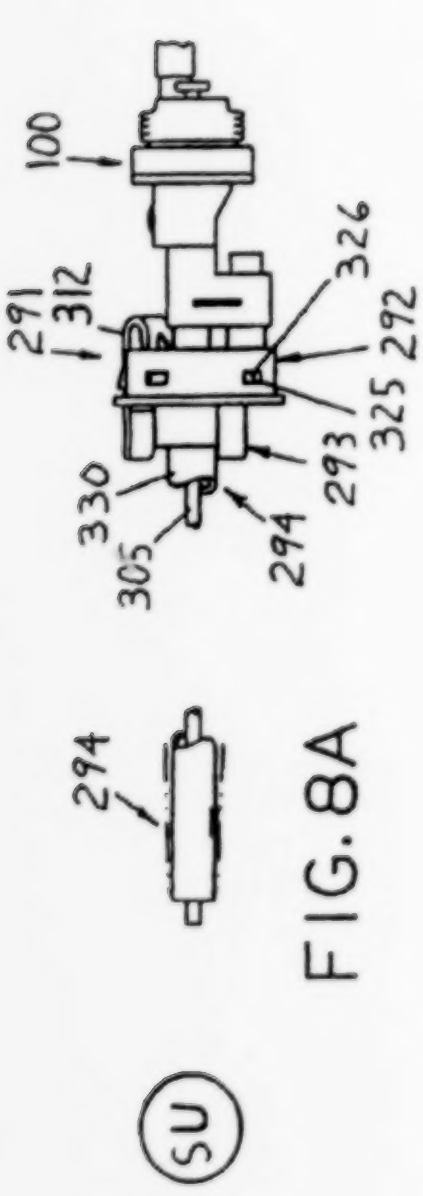
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FIG. 8A

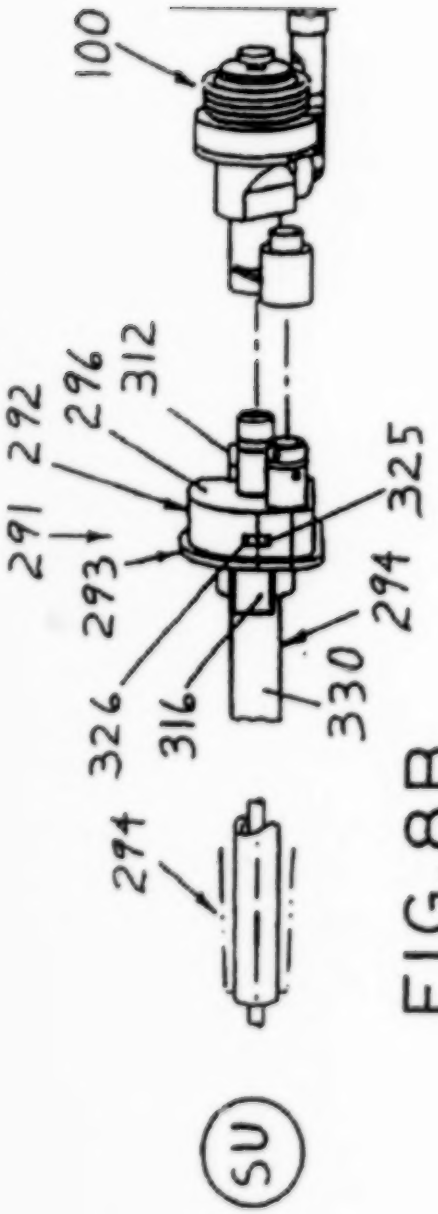
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FIG. 8B

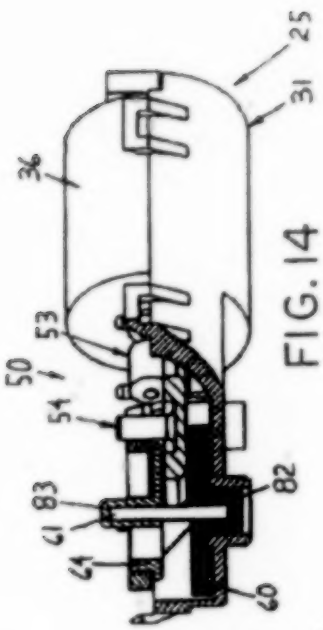


FIG. 14

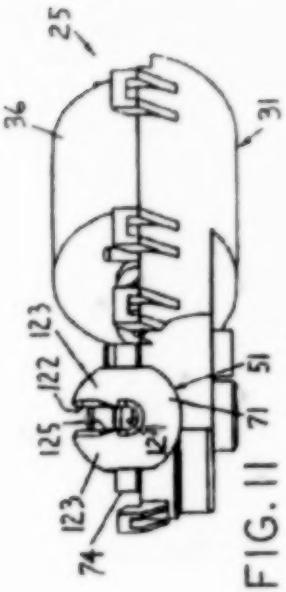


FIG. 11

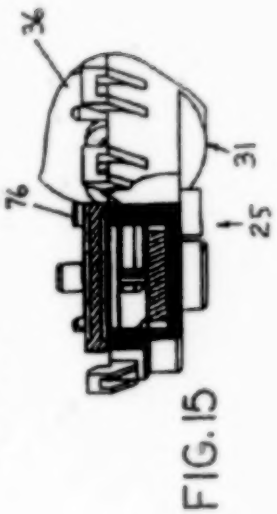


FIG. 15

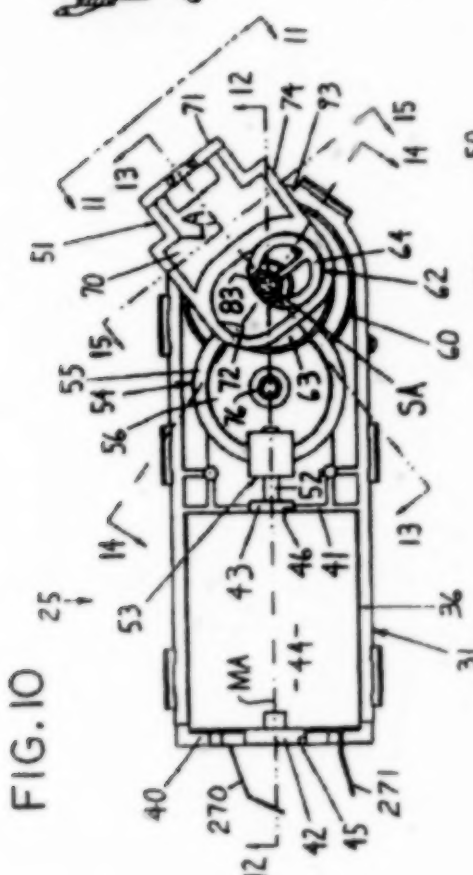
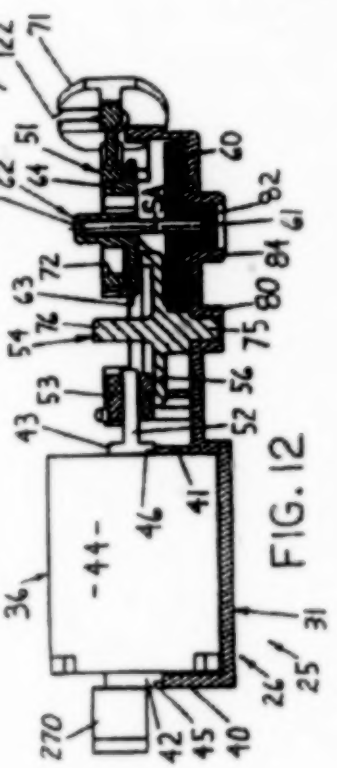


FIG. 10



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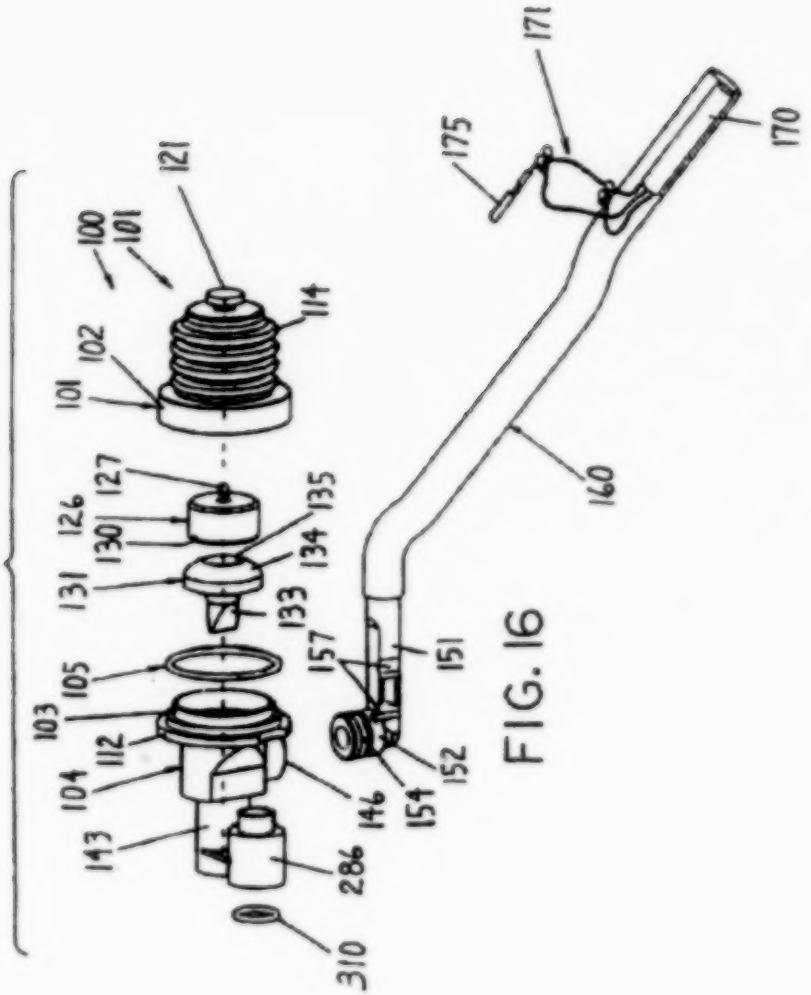
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FIG. 16

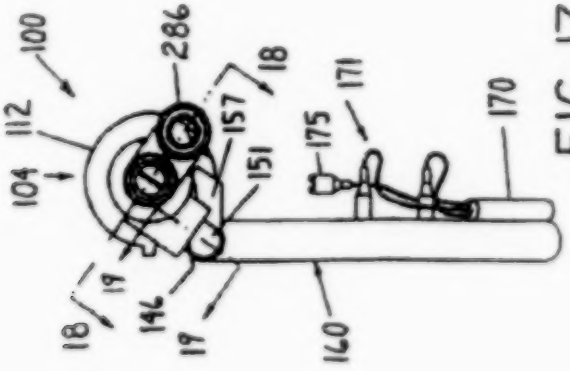
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FIG. 17

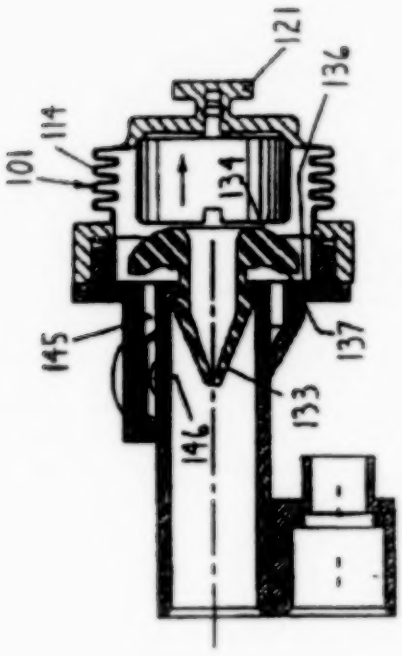

FIG. 18A

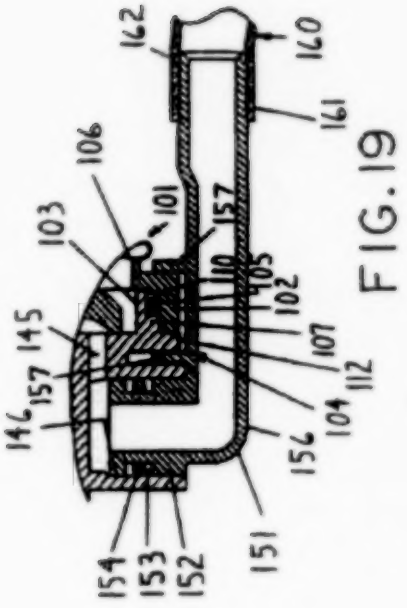

FIG. 19

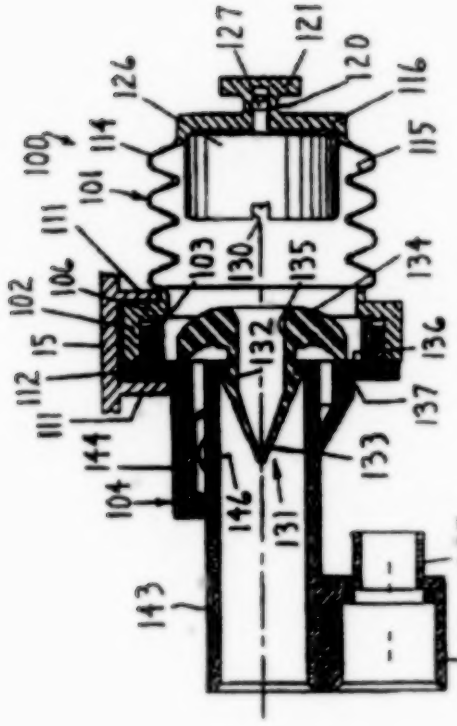

FIG. 18

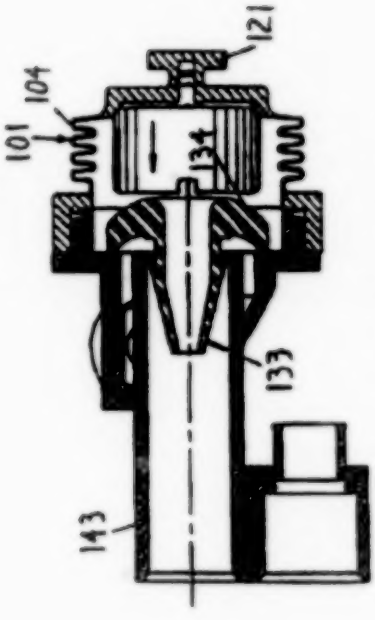

FIG. 18B

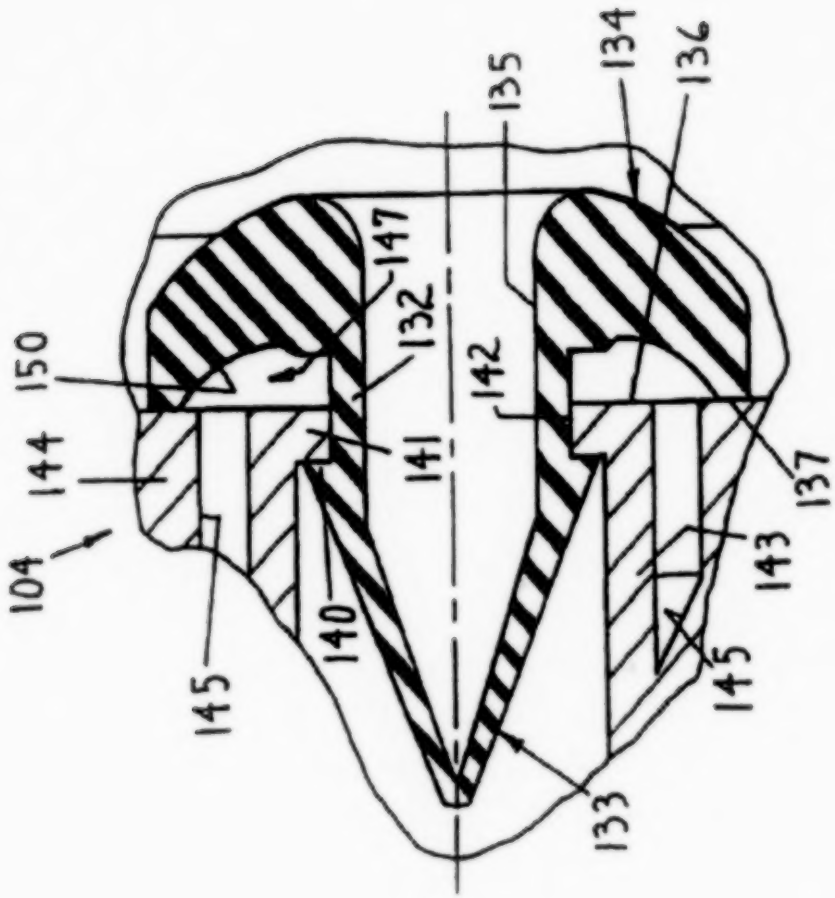

FIG. 18C

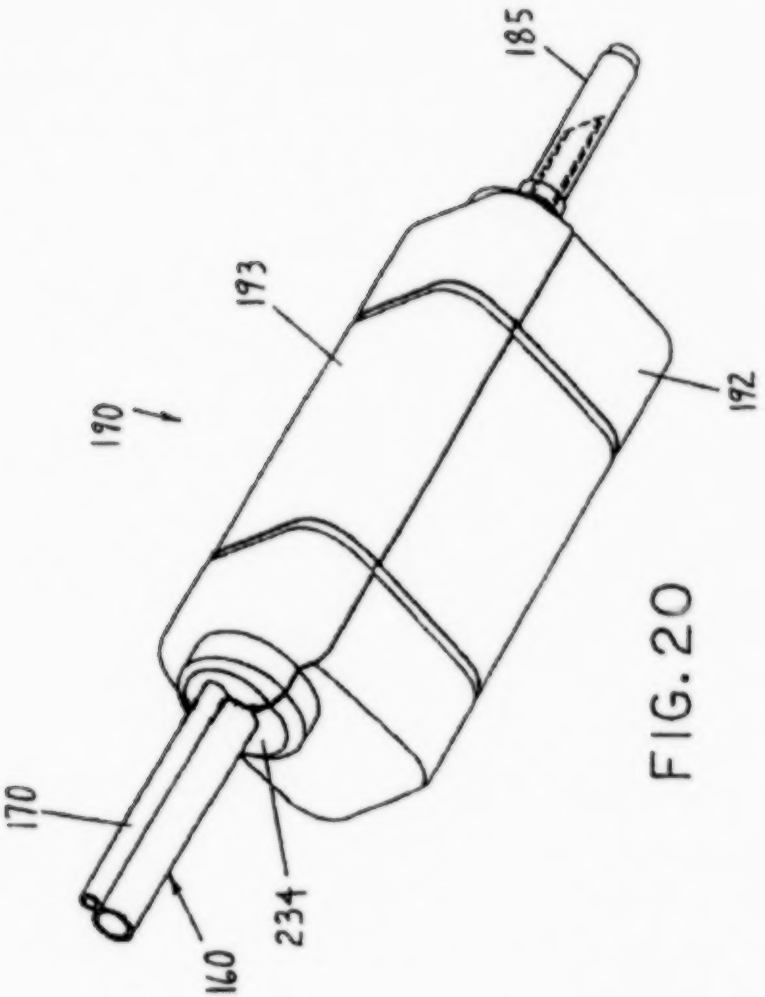

FIG. 20

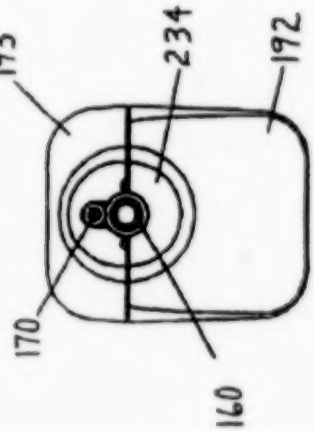

FIG. 21

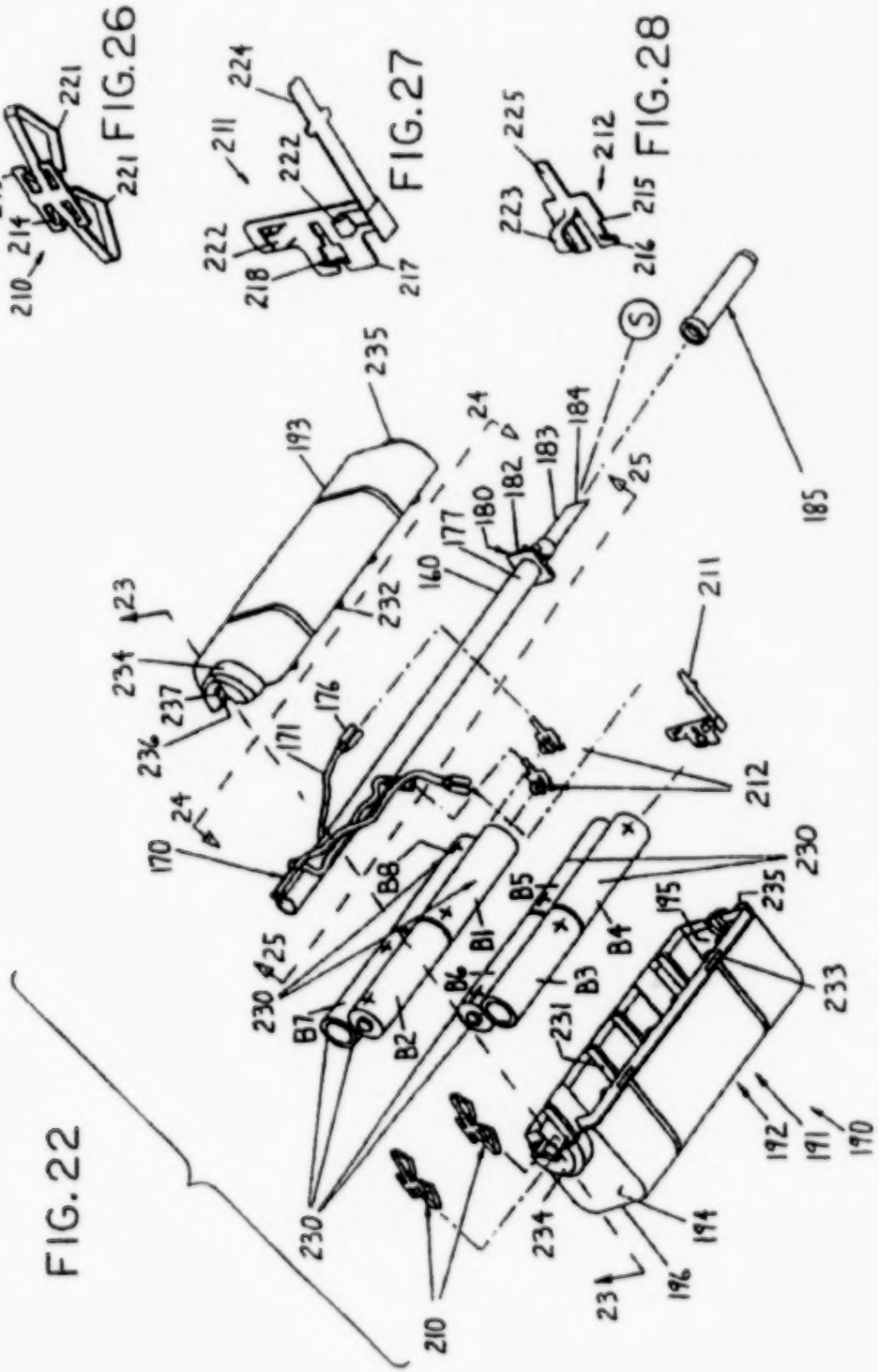
FIG.22
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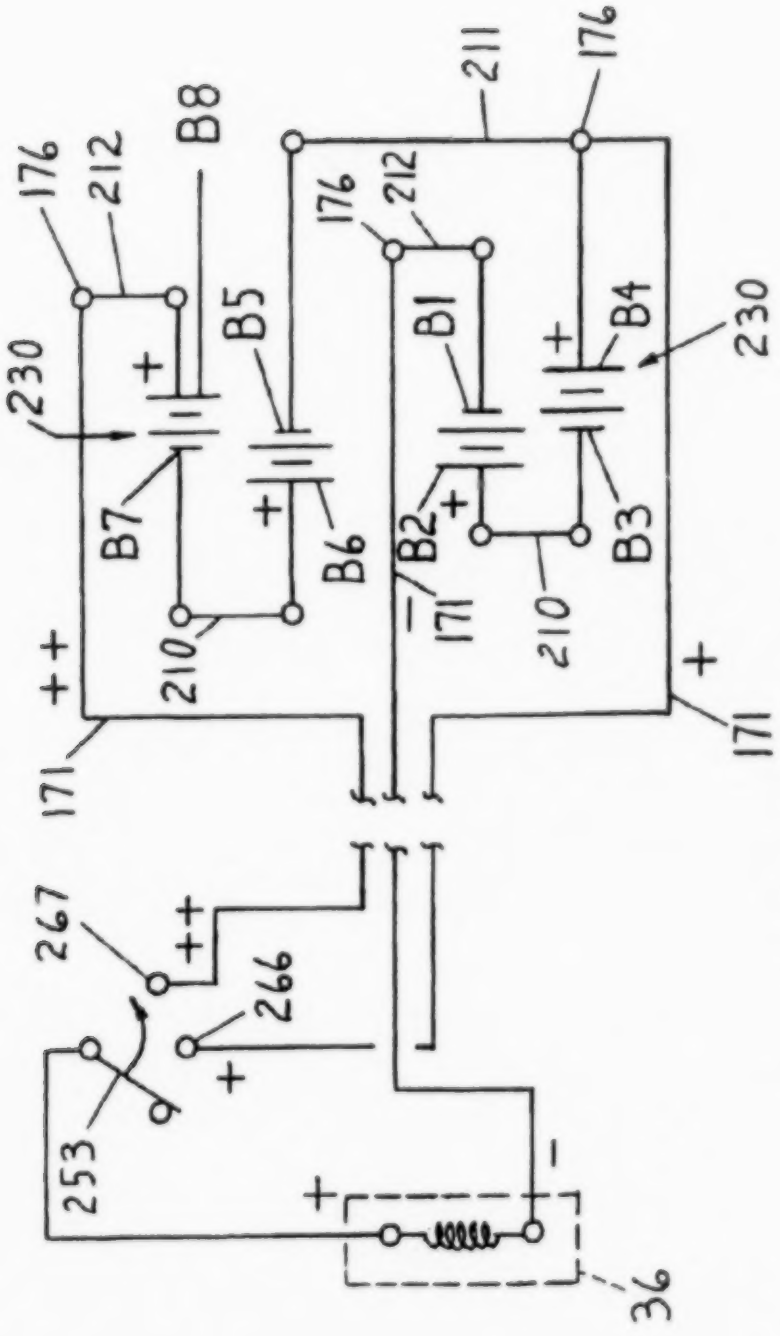
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FIG. 22A

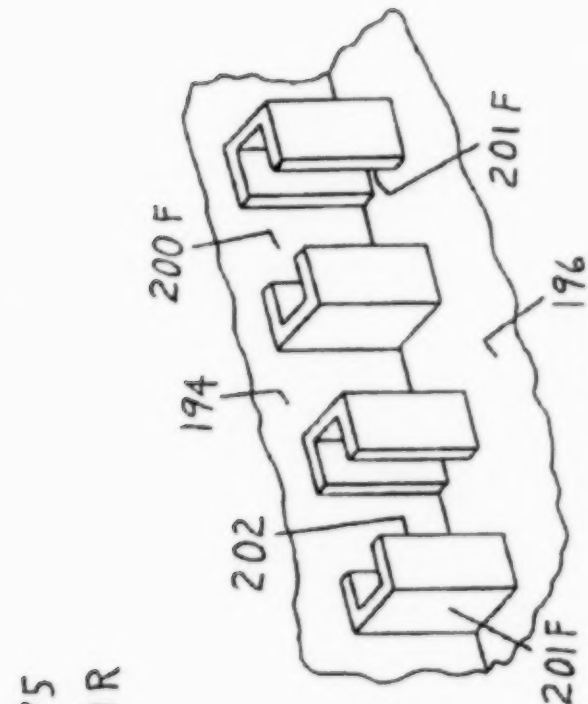

FIG. 23A

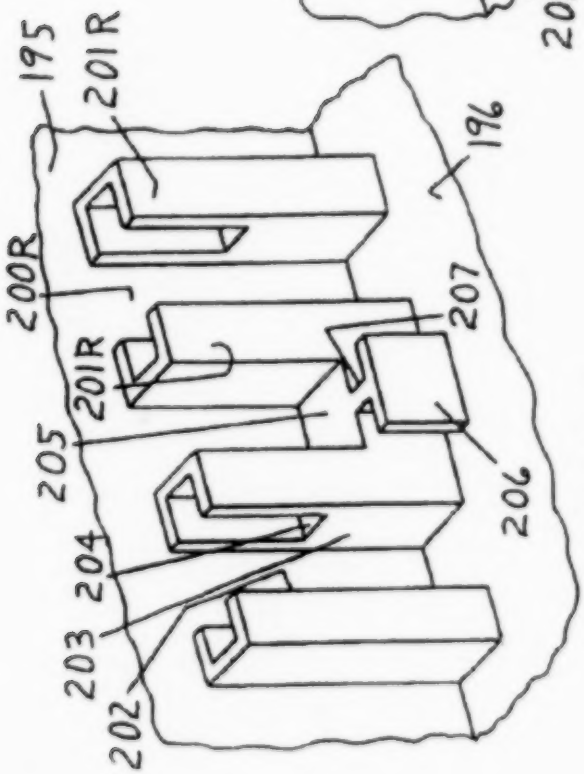

FIG. 23B

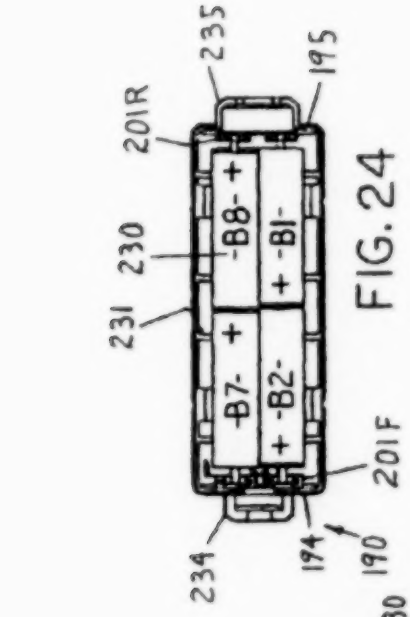

FIG. 24

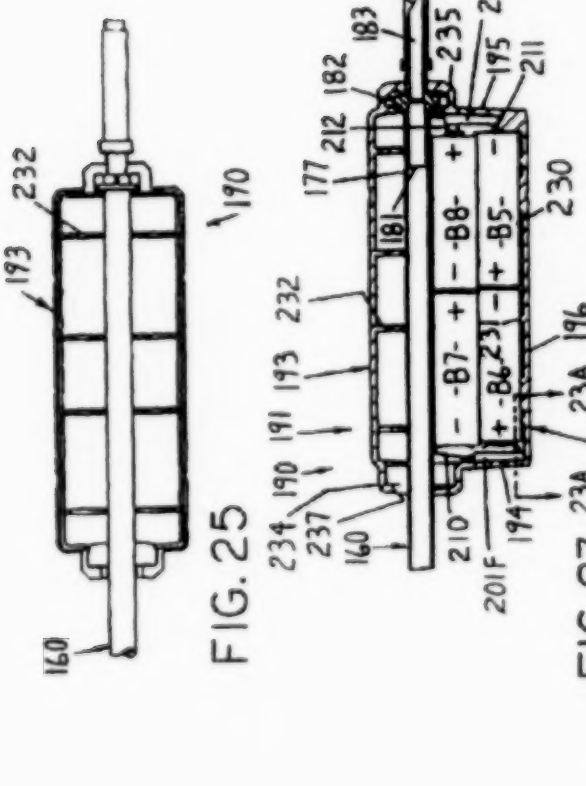

FIG. 23

FIG. 25

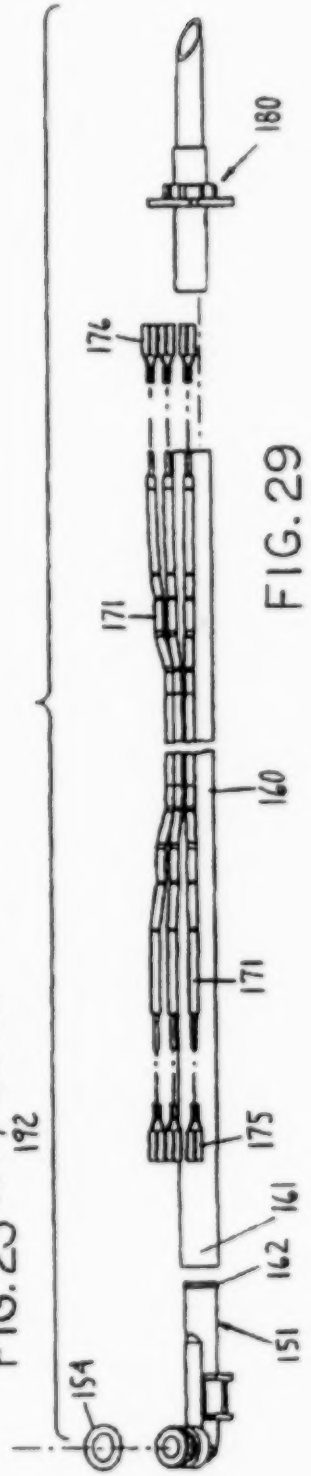

FIG. 29

The United States of America

The Director of the United States Patent and Trademark Office

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extensions.

Nicholas P. Godici

Acting Director of the United States Patent and Trademark Office

Attest: Brenda Moore

NOTICE

If the application for this patent was filed on or after December 12, 1980, maintenance fees are due three years and six months, seven years and six months, and eleven years and six months after the date of this grant, or within a grace period of six months thereafter upon payment of a surcharge as provided by law. The amount, number of timing of the maintenance fees required may be changed by law or regulation. Unless payment of the applicable maintenance fee is received in the United States Patent and Trademark Office on or before the date the fee is due or within a grace period of six months thereafter, the patent will expire as of the end of such grace period.

US006179807B1

(12) **United States Patent**
Henniges et al.

(10) **Patent No.: US 6,179,807 B1**
(45) **Date of Patent: Jan. 30, 2001**

(54) **SURGICAL/MEDICAL IRRIGATOR WITH REMOVABLE TIP AND INTEGRATED SUCTION CONDUIT**

(75) Inventors: **Bruce D. Henniges**, Kalamazoo; **Kris D. Eager**, Richland; **David A. Burke**, Portage; **Douglas L. Tyler, Sr.**, Paw Paw; **David H. Grulke**, Battle Creek, all of MI (US)

(73) Assignee: **Stryker Corporation**, Kalamazoo, MI (US)

(*) Notice: Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

(21) Appl. No.: **09/425,820**

(22) Filed: **Oct. 22, 1999**

Related U.S. Application Data

(62) Division of application No. 08/915,431, filed on Aug. 20, 1997.

(51) **Int. Cl.**[7] **A61M 5/32**
(52) **U.S. Cl.** **604/35**; 604/39
(58) **Field of Search** 604/35, 39, 43, 604/21, 66, 67, 131, 902, 151

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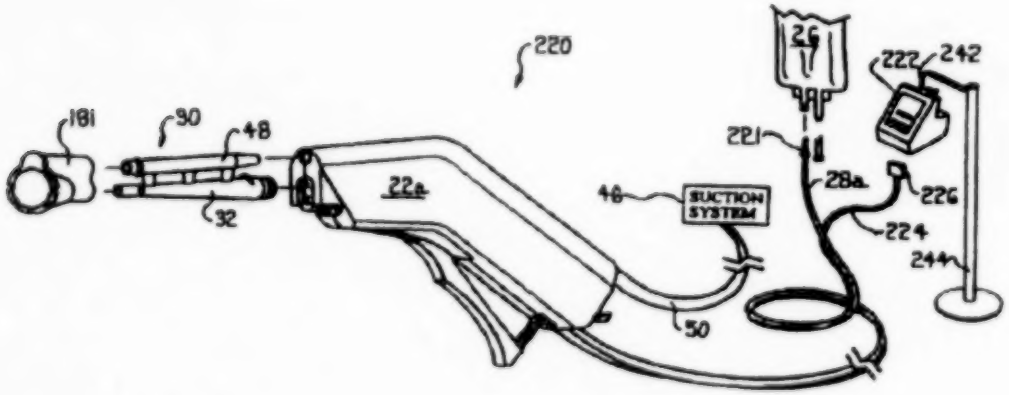
Davol, *To Pulsed Lavage*, The Choice Is Remarkably Simple, Jan., 1995, 4 pgs.
Davol, *Performance Irrigation™ Systems*, Pulsed Lavage for Wound Management, Dec., 1995, 2 pgs.
Davol, *To Pulsed Lavage, The Choice Is Simple*, Sep., 1994, 3 pgs.

Primary Examiner—John D. Yasko
(74) *Attorney, Agent, or Firm*—Flynn, Thiel, Boutell & Tanis, P.C.

(57) **ABSTRACT**

An irrigator (20) useful for surgical and medical procedures. The irrigator includes a handpiece (22) to which a tip assembly (30) is attached. The handpiece (22) includes a drain tube (50) that extends through the body of the handpiece and outside of the handpiece to the complementary suction system. The tip assembly includes a discharge tube (32) that is snap secured into the front of the handpiece and a suction tube (48) that seats in the open front end of the drain tube. A removable splash shield (181) is attached to the front end of the tip assembly. A trigger (44) allows one-handed control of, the position of the handpiece, the on/off state of the irrigator and the rate at which fluid is discharged from the irrigator. A rechargeable power pack (222) can be used to supply the energization current needed to activate a number of different handpieces at different speeds.

54 Claims, 15 Drawing Sheets



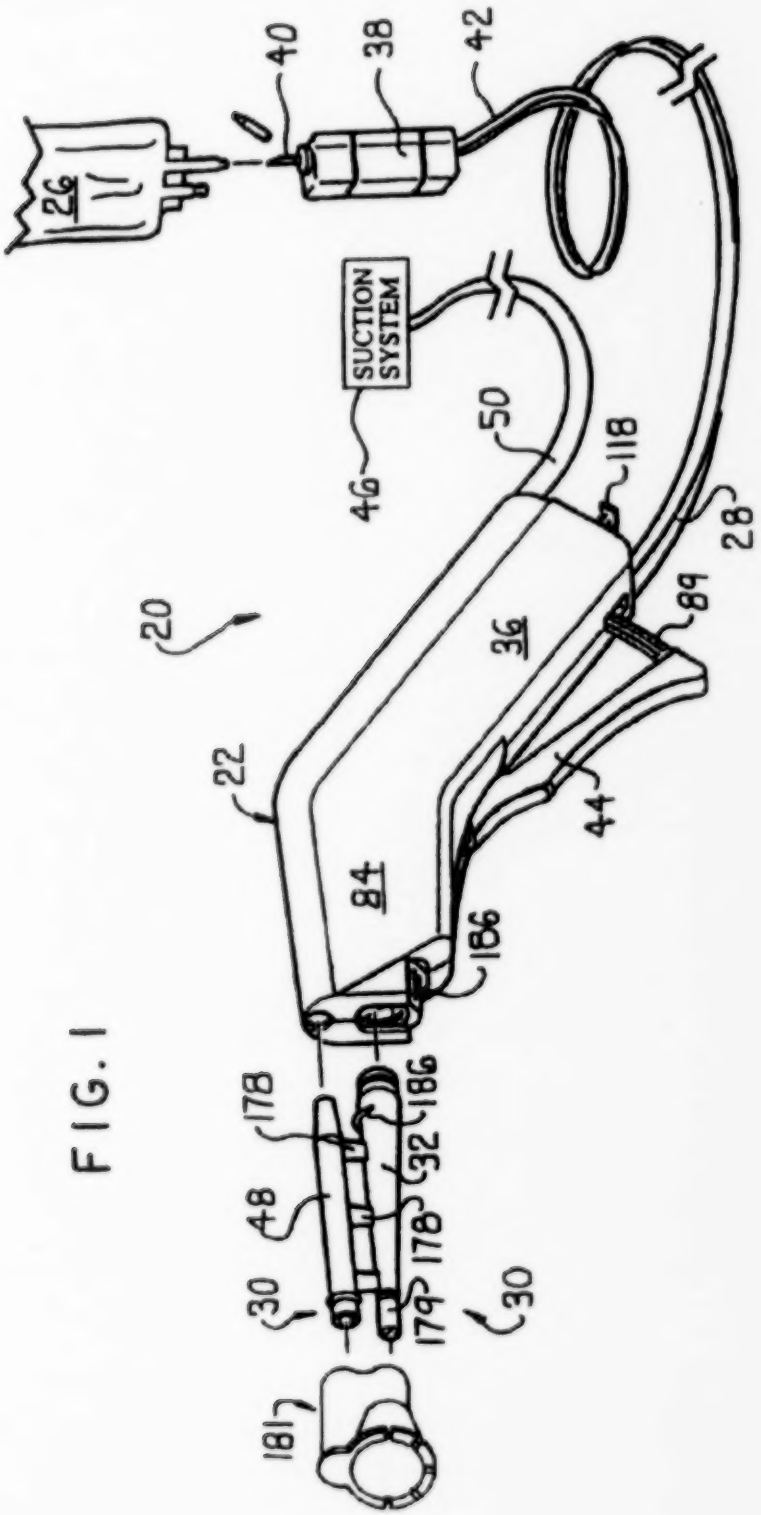

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FIG. 1

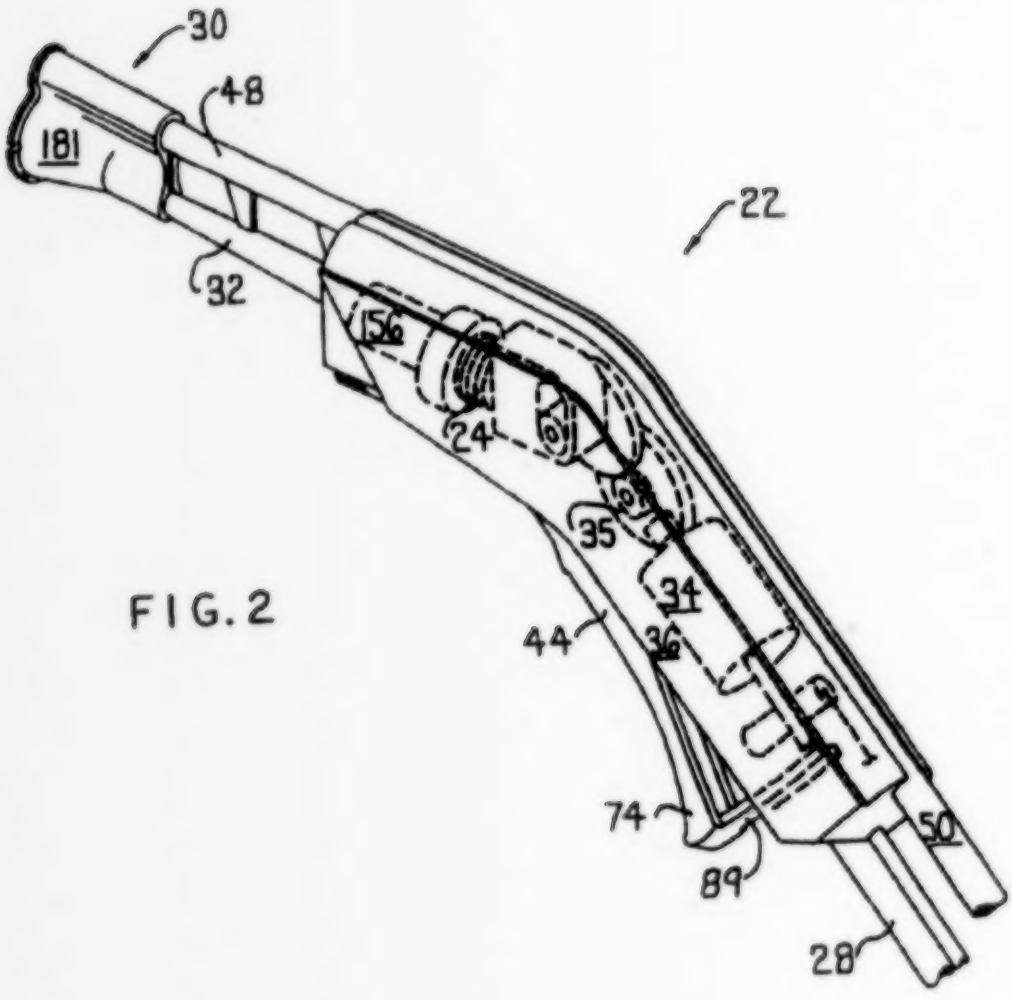

FIG. 2

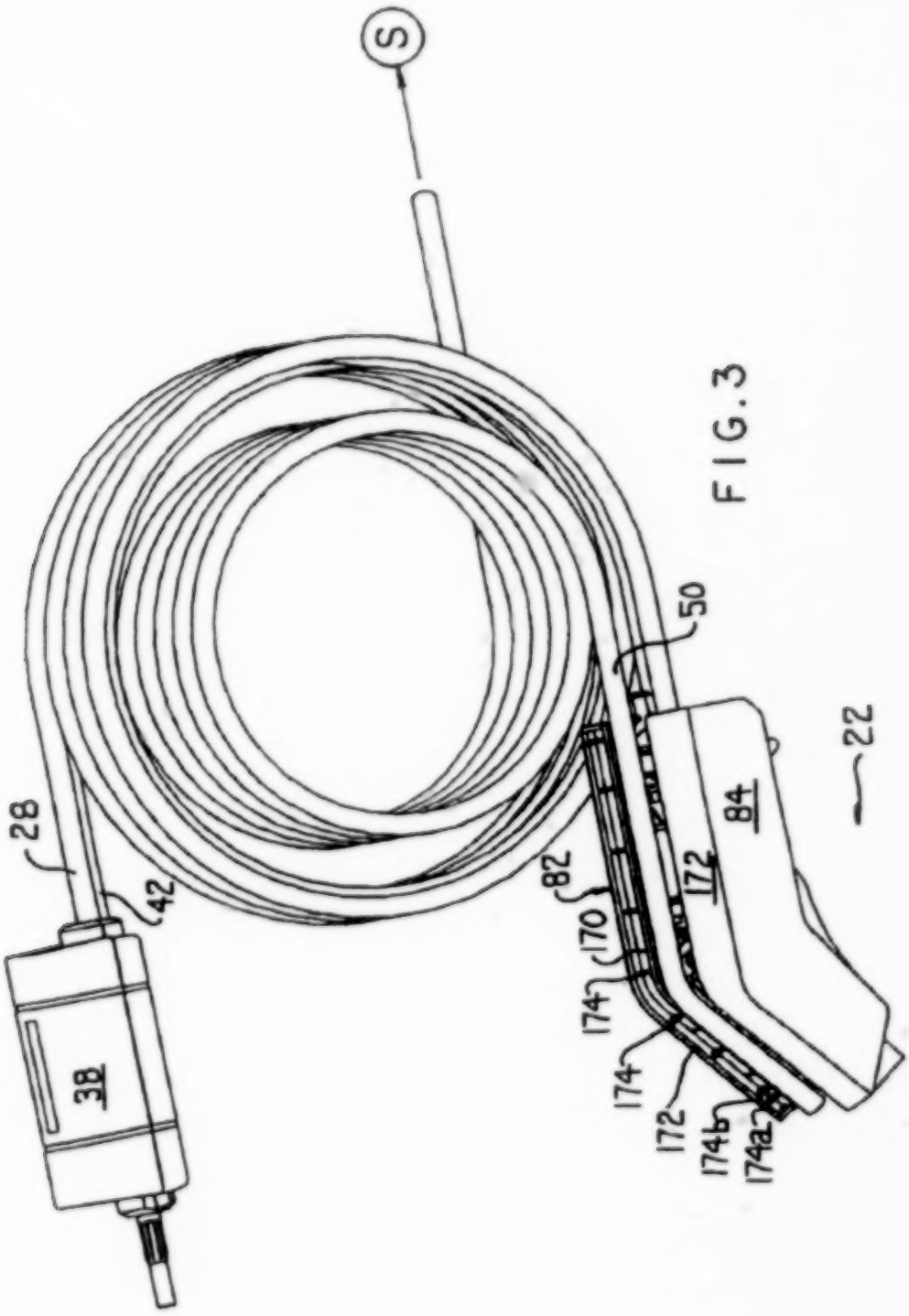

FIG. 3

FIG. 4

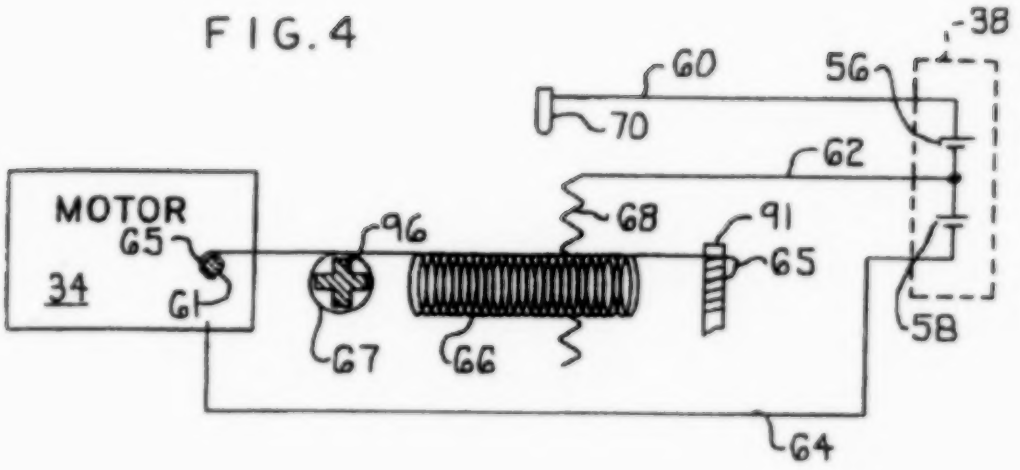
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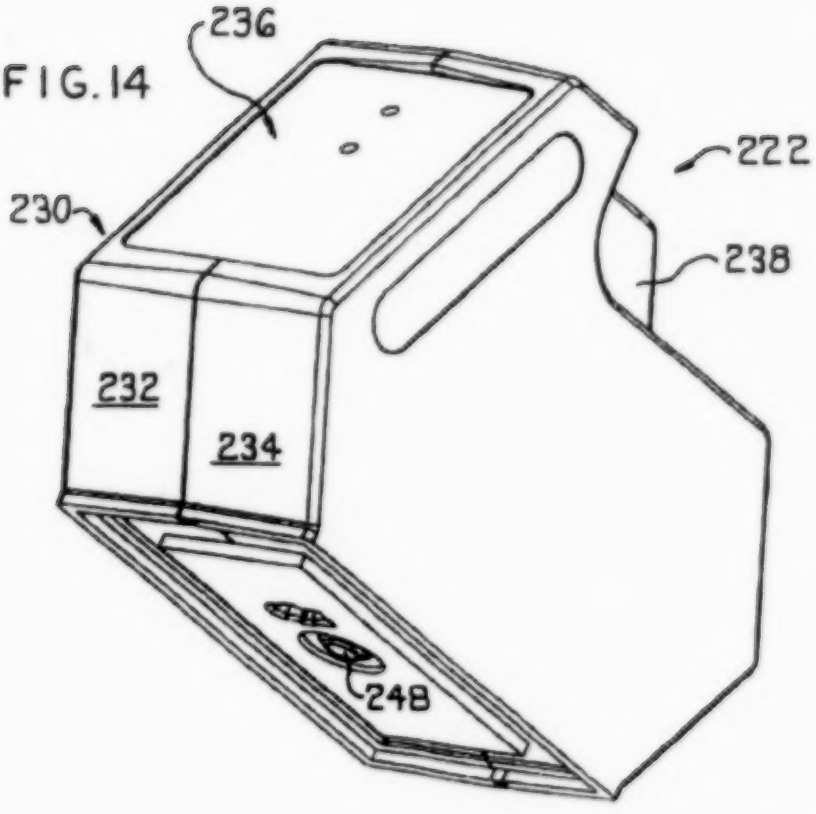
FIG. 14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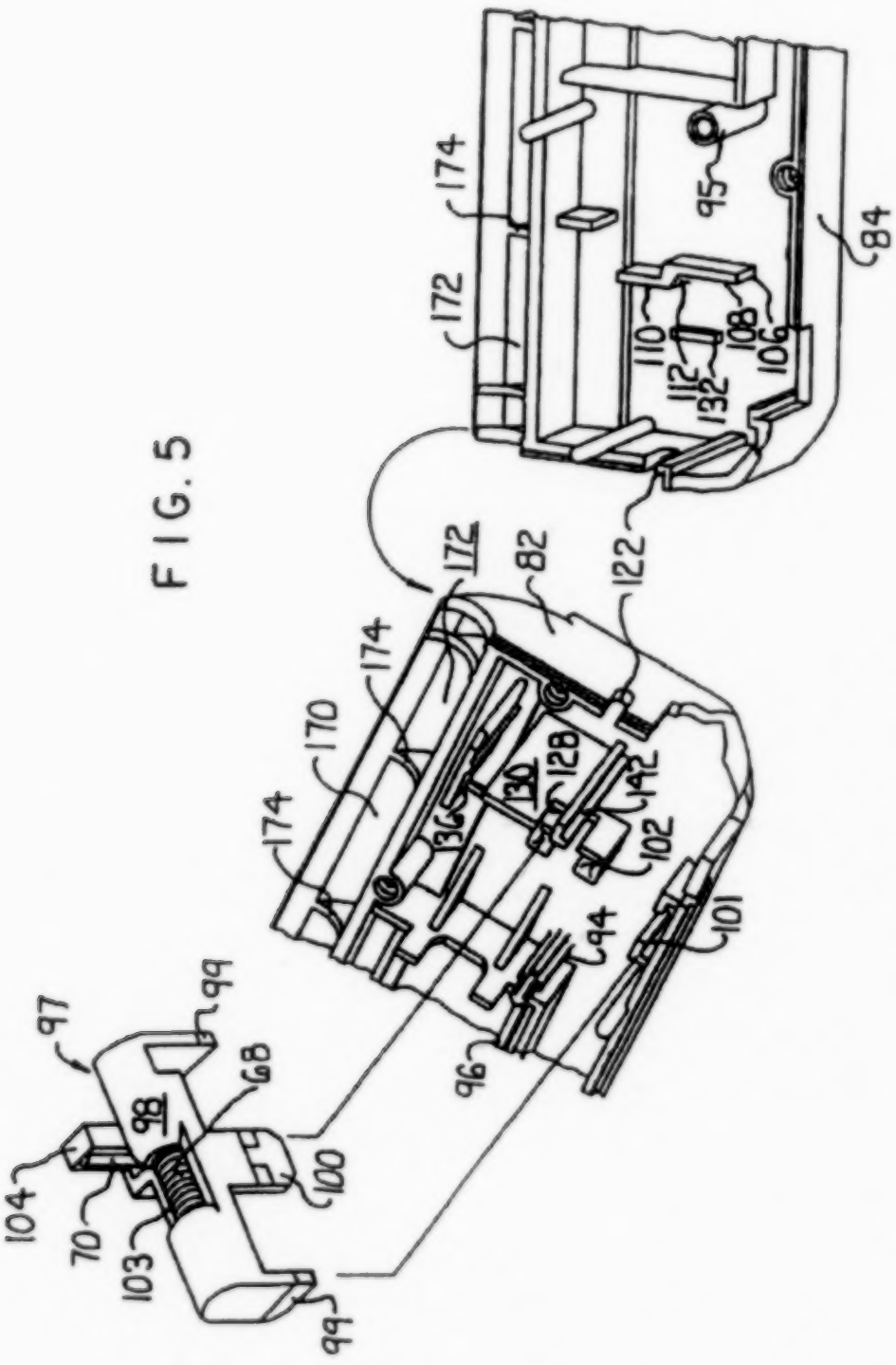
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FIG. 5

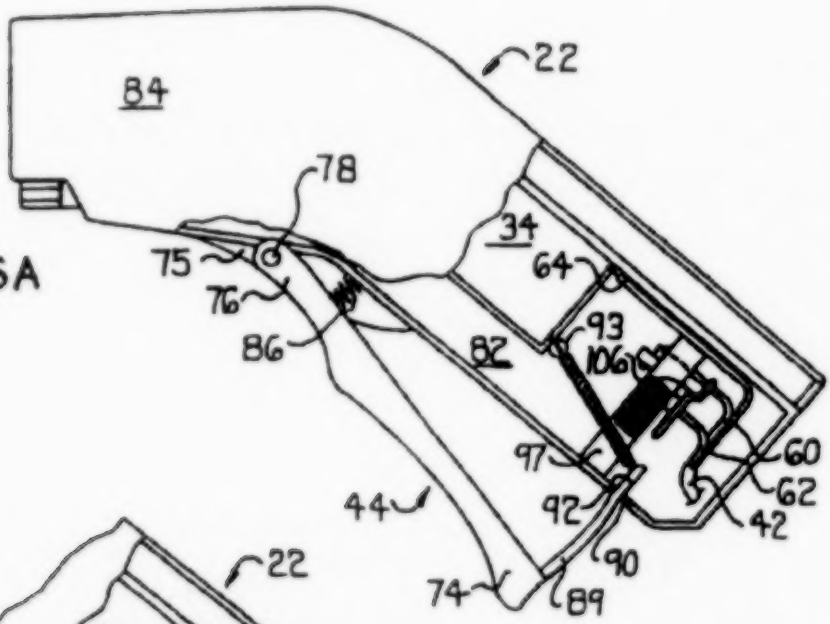

FIG. 6A

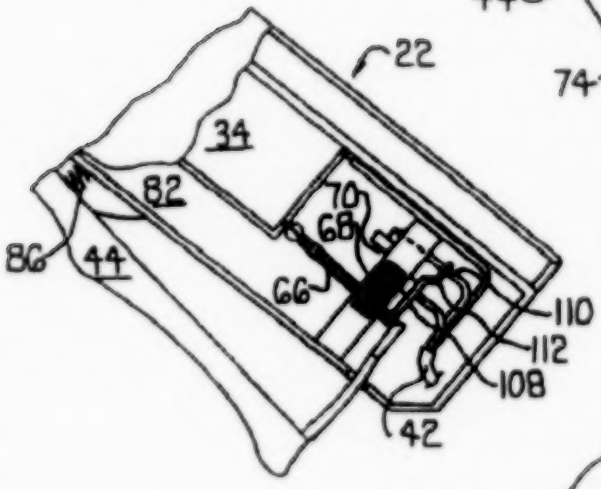

FIG. 6B

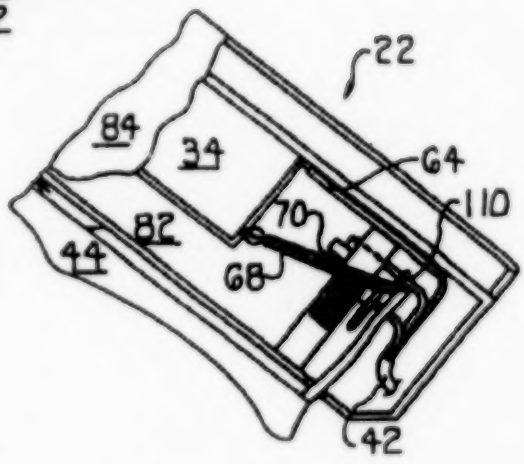

FIG. 6C

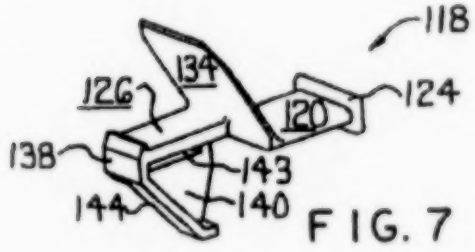

FIG. 7

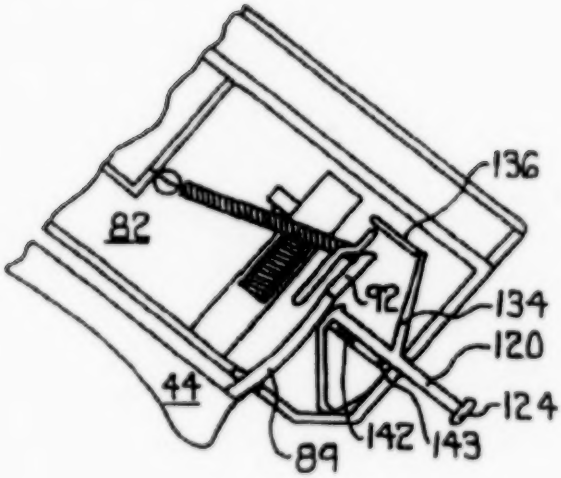

FIG. 7A

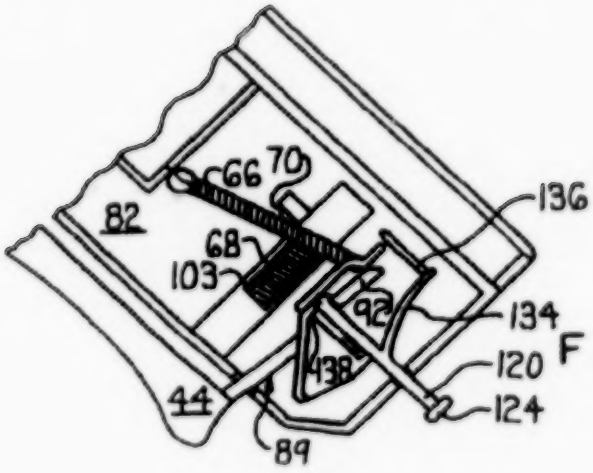

FIG. 7B

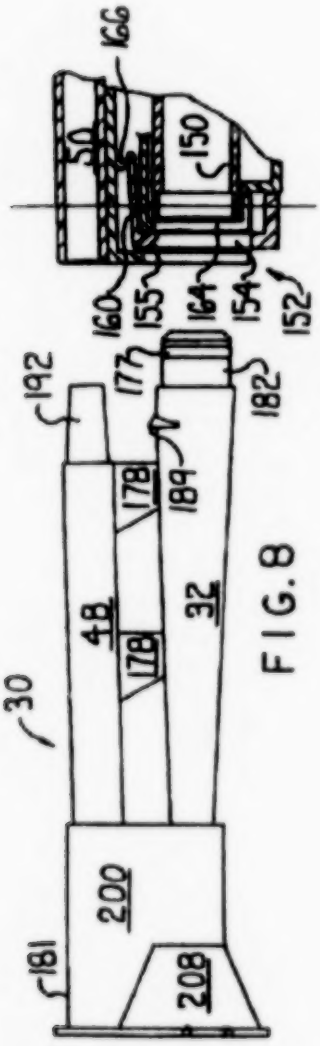

FIG. 8

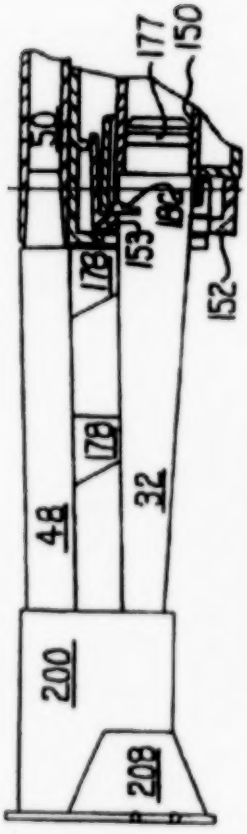

FIG. 11

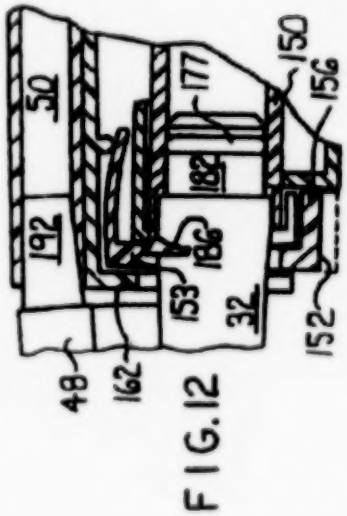

FIG. 12

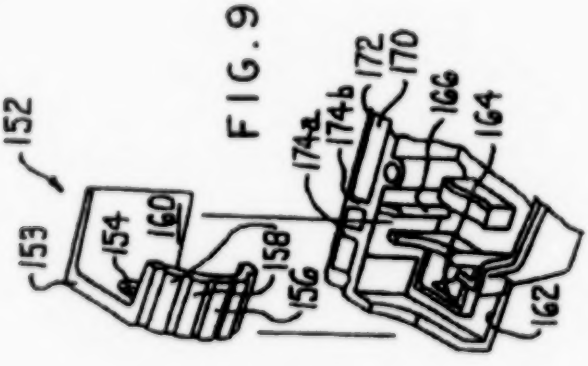

FIG. 9

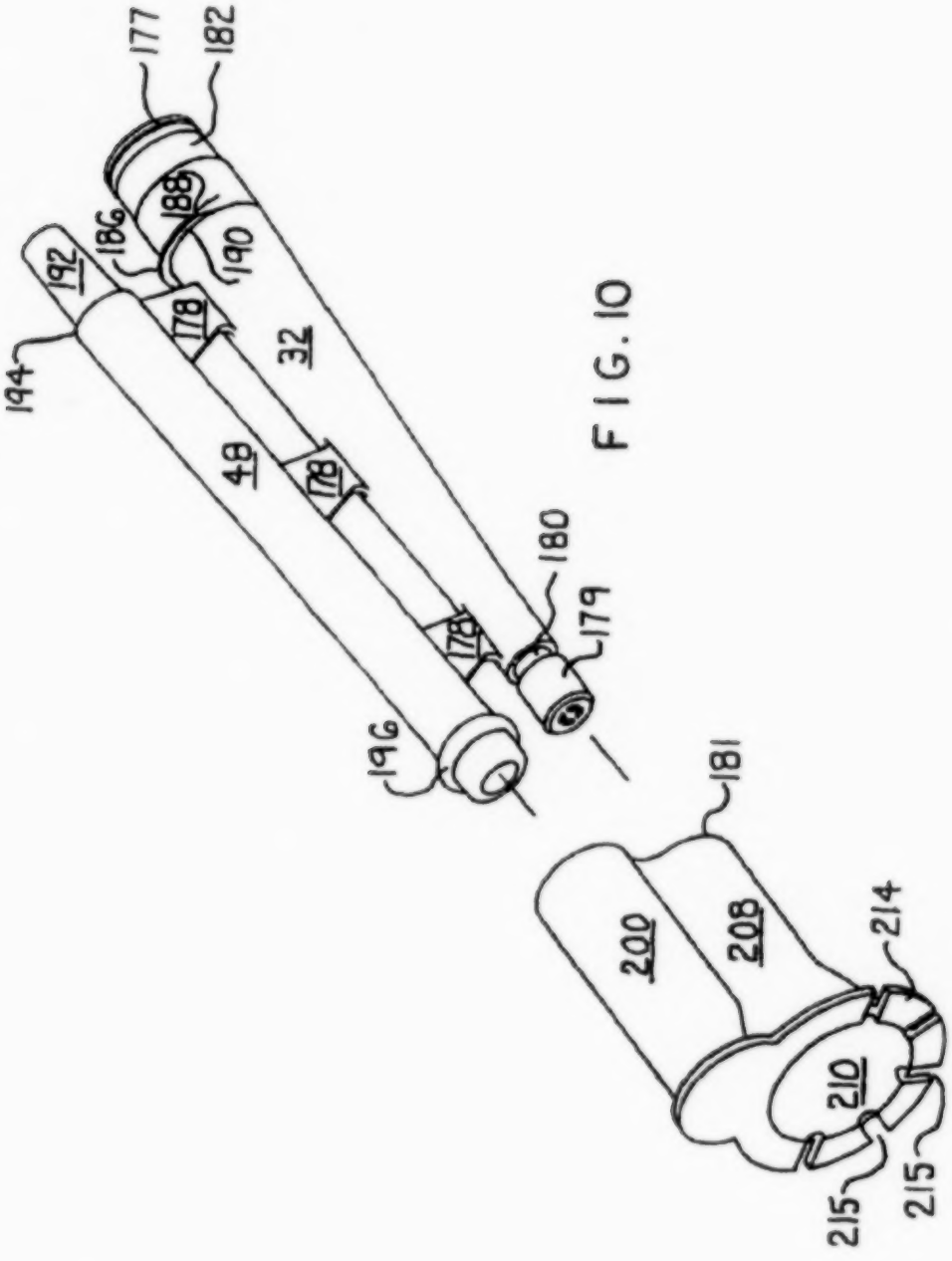
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FIG. 10

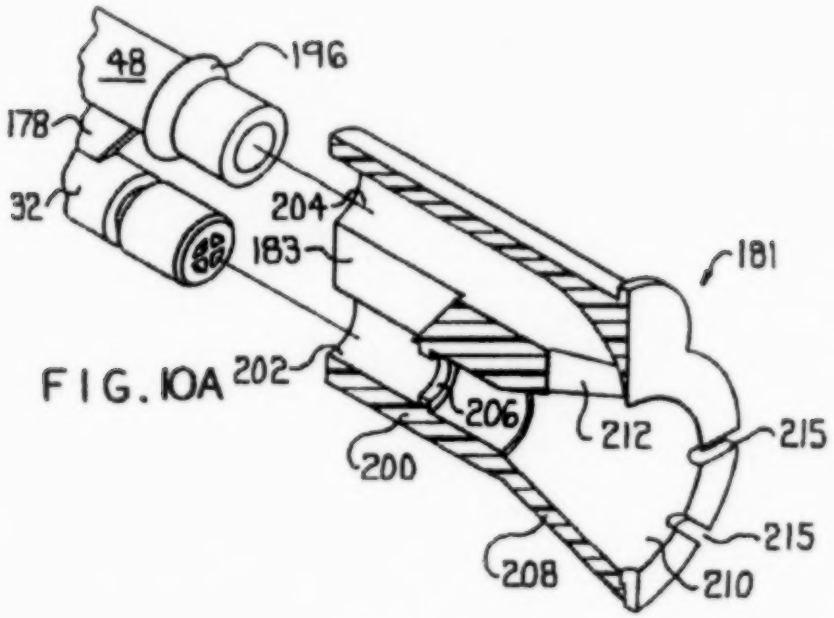


FIG. 10A

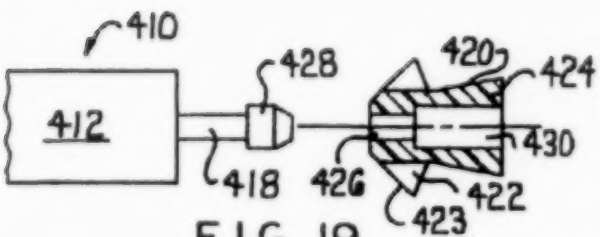


FIG. 19

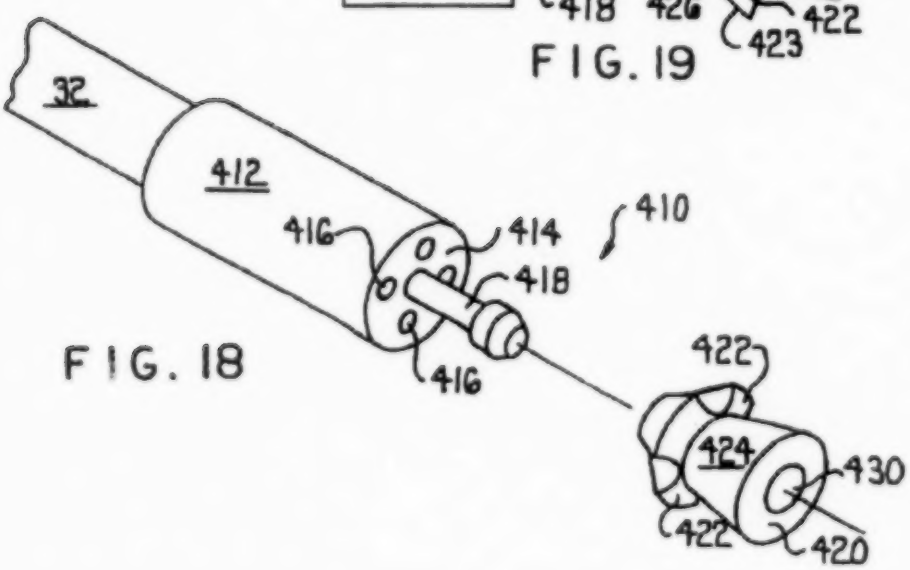
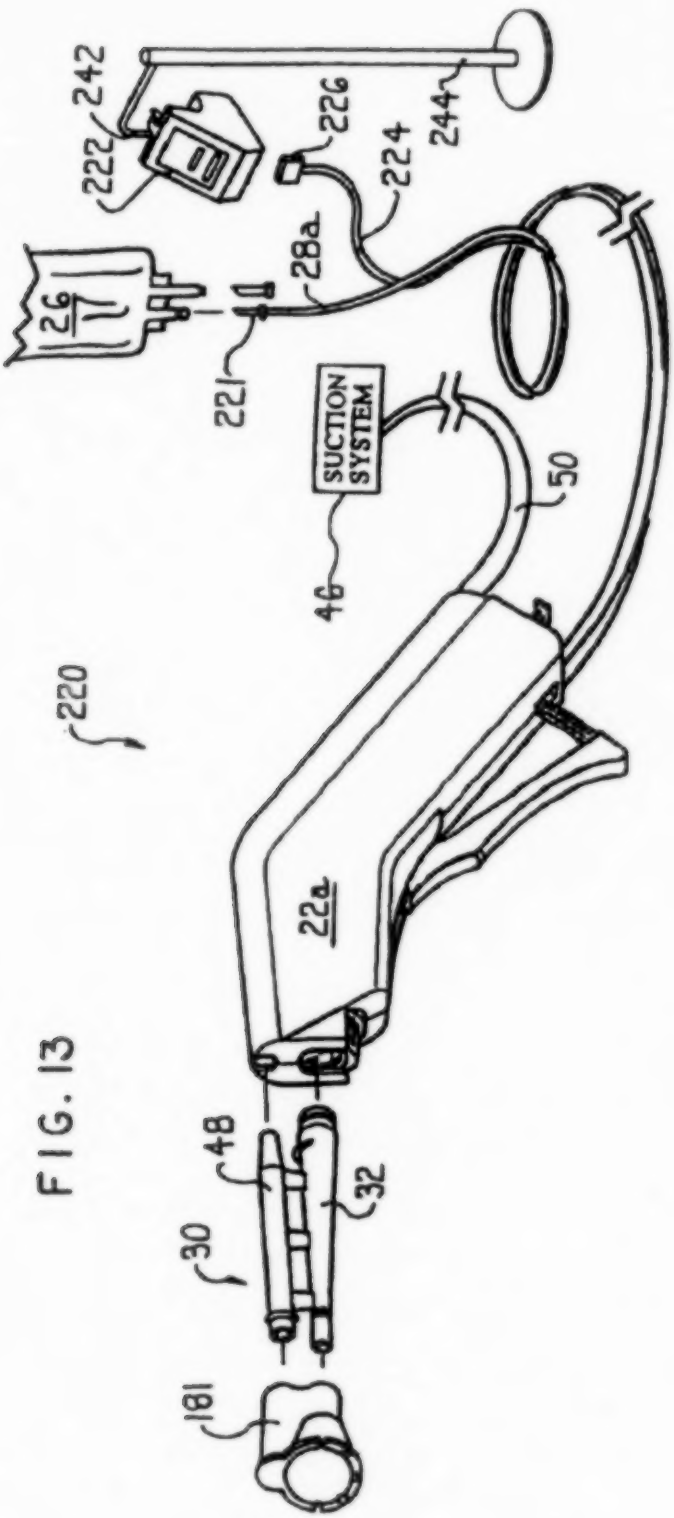


FIG. 18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SUCTION SYSTEM
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46
220
22a
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32
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181

FIG. 13

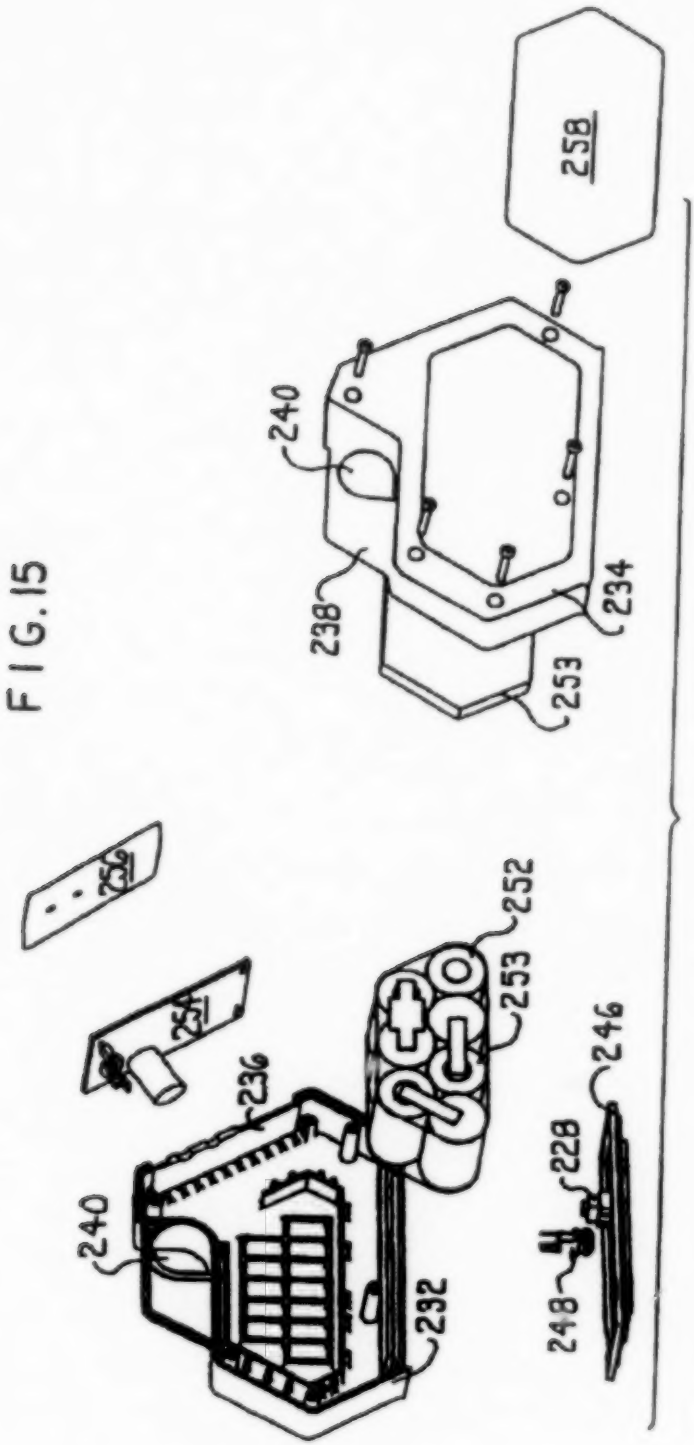
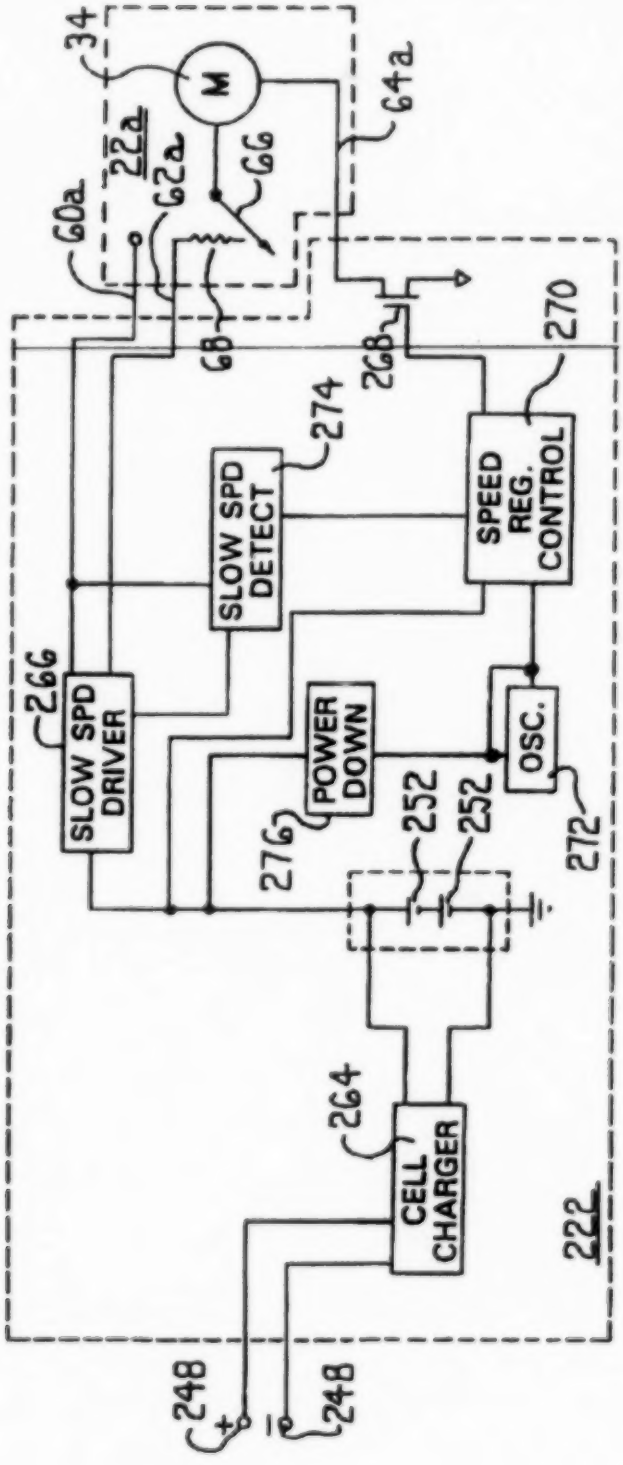


FIG. 15

FIG 17B
FIG.17A

FIG.17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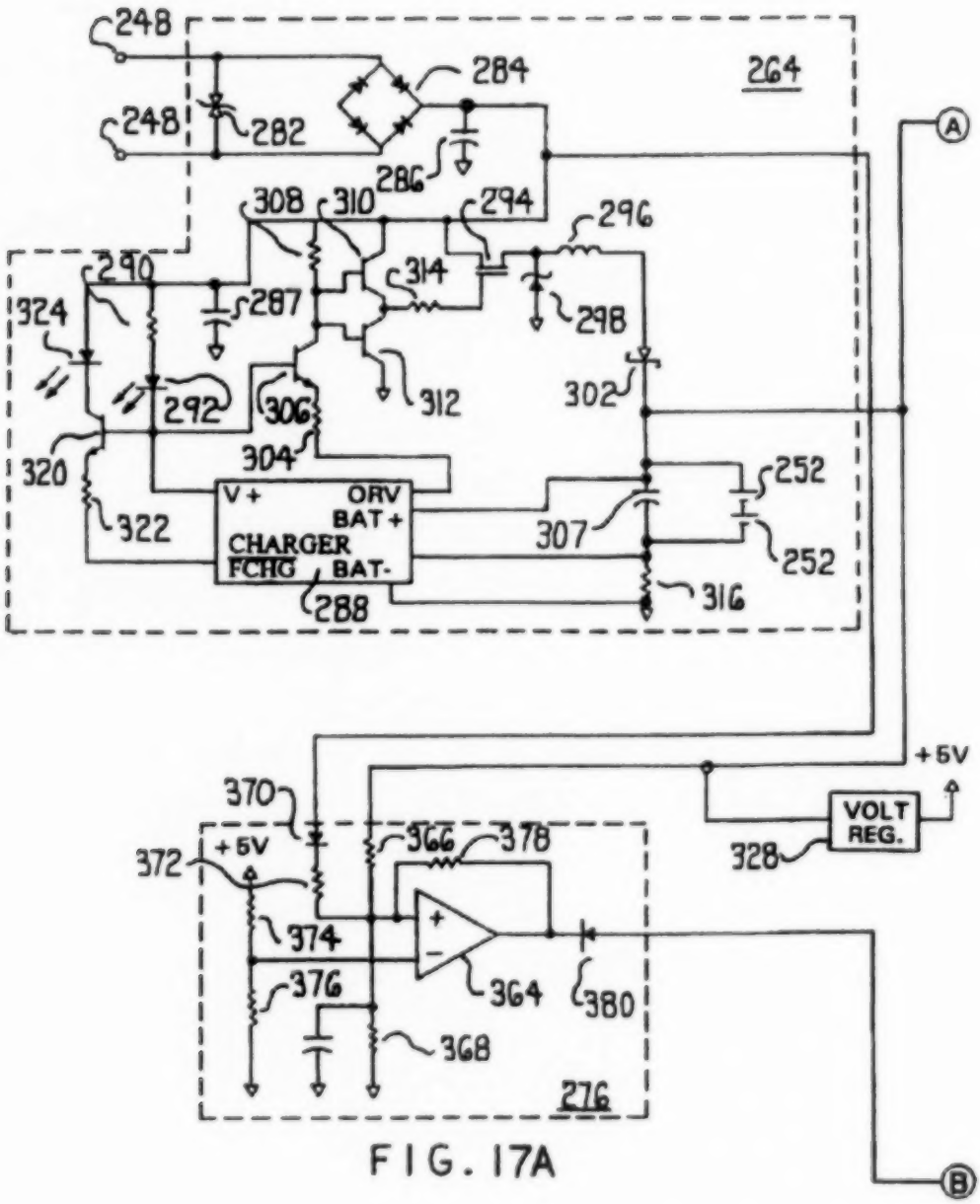
M
64a
22a
62a
66
60a
68
268
270
274
SLOW SPD DETECT
SPEED REG. CONTROL
266
SLOW SPD DRIVER
POWER DOWN
OSC.
276
252
252
272
264
CELL CHARGER
222
248
+
-
248

FIG. 16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302
320
304
252
V+
ORV
BAT+
322
CHARGER
307
FCHG
BAT-
252
288
316
A
+5V
370
VOLT
REG.
372
+5V
366
378
328
374
364
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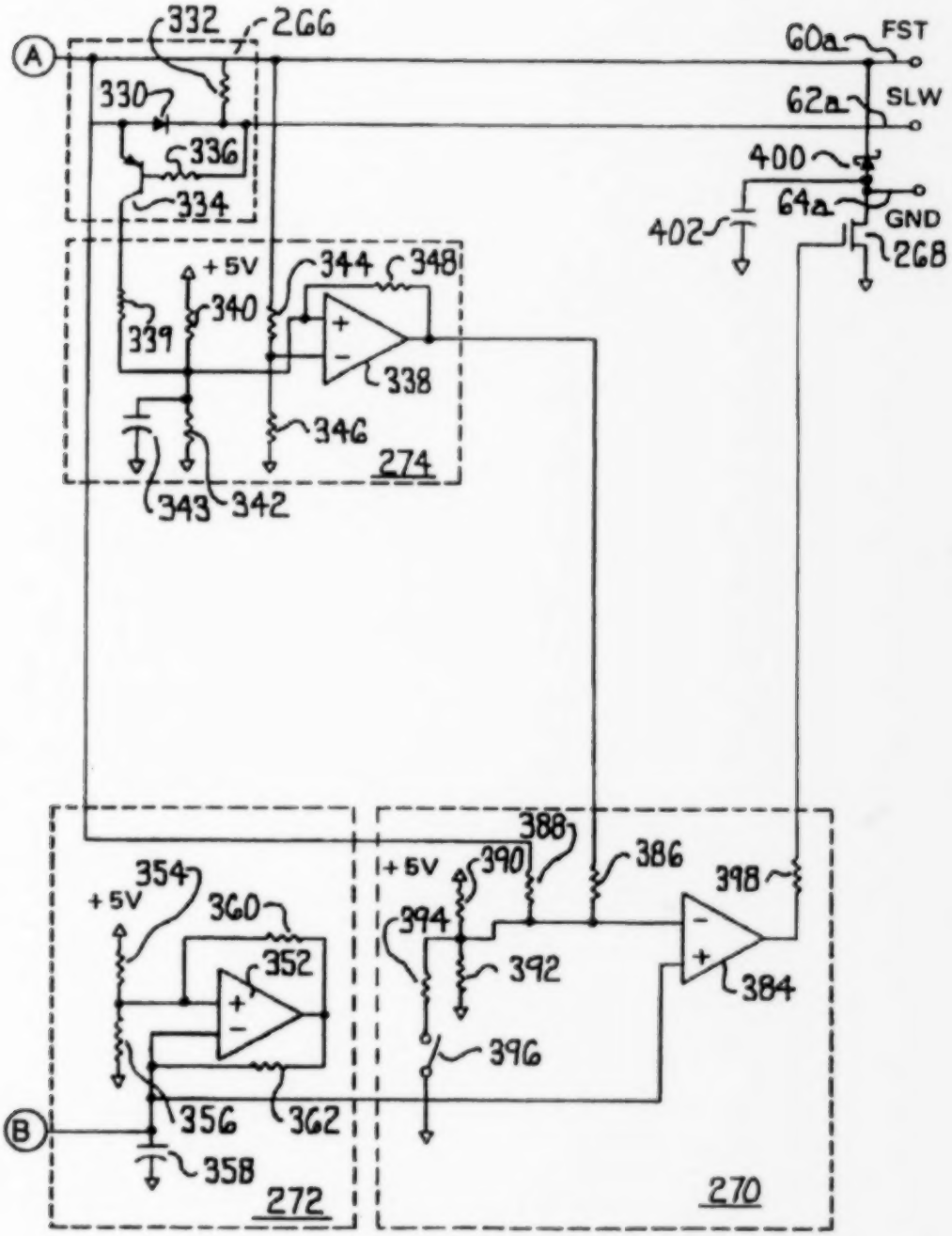
368
276
B

FIG. 17A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FST
62a
SLW
400
64a
GND
402
268
+5V
344
348
340
339
338
346
274
343
342
388
+5V
390
386
398
354
+5V
360
352
394
392
384
396
B
356
362
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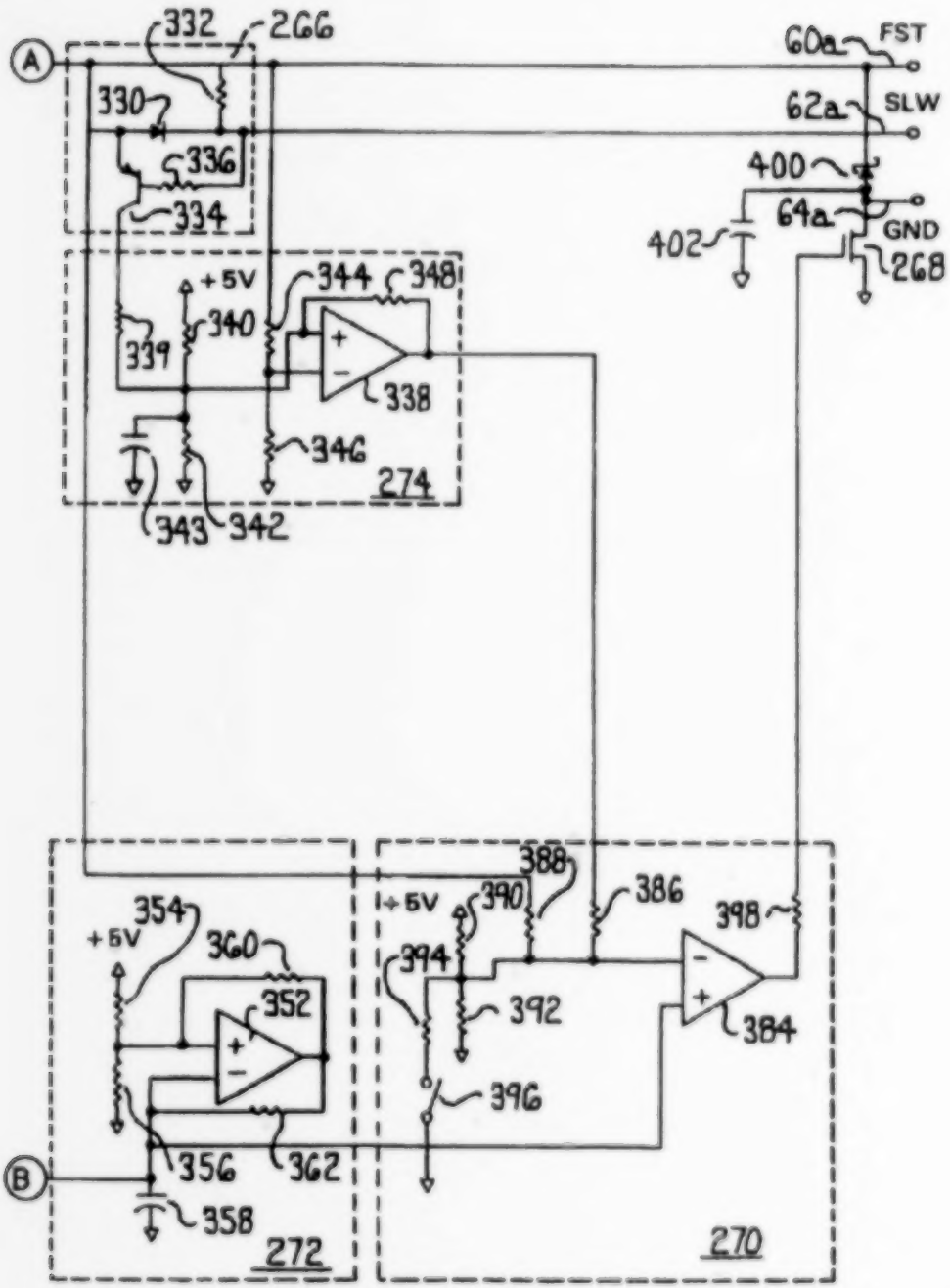
272
270

FIG. 17B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266
330
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334
+5V
344
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340
339
338
346
274
343
342
A
60a
FST
62a
SLW
400
64a
GND
402
268
388
386
398
354
+5V
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352
390
394
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384
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FIG. 17B

The United States of America

The Director of the United States Patent and Trademark Office

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extensions.

Jon W. Dudas

Director of the United States Patent and Trademark Office

NOTICE

If the application for this patent was filed on or after December 12, 1980, maintenance fees are due three years and six months, seven years and six months, and eleven years and six months after the date of this grant, or within a grace period of six months thereafter upon payment of a surcharge as provided by law. The amount, number of timing of the maintenance fees required may be changed by law or regulation. Unless payment of the applicable maintenance fee is received in the United States Patent and Trademark Office on or before the date the fee is due or within a grace period of six months thereafter, the patent will expire as of the end of such grace period.

US007144383B2

(12) **United States Patent**
Arnett et al.

(10) **Patent No.: US 7,144,383 B2**
(45) **Date of Patent: *Dec. 5, 2006**

(54) **SURGICAL/MEDICAL IRRIGATING HANDPIECE WITH VARIABLE SPEED PUMP, INTEGRATED SUCTION AND BATTERY PACK**

(75) Inventors: **Jeffery D. Arnett**, Kalamazoo, MI (US); **Nicholas V Gately**, Portage, MI (US); **David H. Grulke**, Battle Creek, MI (US); **Ruth A. Hibbs**, Saline, MI (US); **James L Sertic**, Kalamazoo, MI (US)

(73) Assignee: **Stryker Corporation**, Kalamazoo, MI (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **10/838,890**

(22) Filed: **May 4, 2004**

(65) **Prior Publication Data**

US 2004/0210186 A1 Oct. 21, 2004

Related U.S. Application Data

(63) Continuation of application No. 09/460,705, filed on Dec. 14, 1999, now Pat. No. 6,746,419, which is a continuation of application No. 09/009,657, filed on Jan. 20, 1998, now Pat. No. 6,022,329, which is a continuation of application No. 08/559,133, filed on Nov. 17, 1995, now Pat. No. 5,718,668, which is a continuation of application No. 08/049,144, filed on Apr. 19, 1993, now Pat. No. 5,470,305.

(51) **Int. Cl.**
A61M 3/00 (2006.01)
A61M 3/02 (2006.01)

(52) **U.S. Cl.** **604/35**; 604/153; 604/246; 604/902; 601/155; 601/161

(58) **Field of Classification Search** 601/155, 601/154, 160–165; 604/153, 246, 631, 902, 604/19, 28, 30–35, 119; 239/93, 320, 239, 239/263.1, 526

See application file for complete search history.

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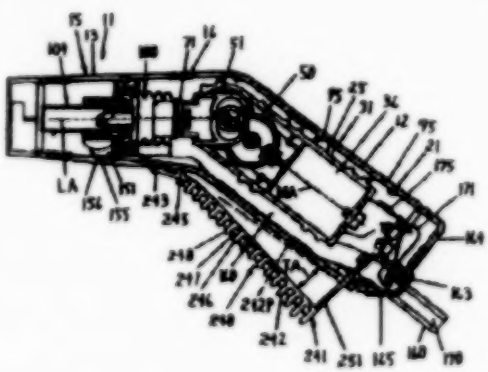
Primary Examiner—Danton DeMille

(57) **ABSTRACT**

A medical/surgical irrigating handpiece with both a discharge line through which fluid is applied to the site and a suction line through which the discharge fluid is drawn away. The handpiece has a variable speed pulse pump. A single, variable-speed motor actuates the pump to regulate the pumping rate. Power to actuate the motor comes from a battery pack that remote to the handpiece. A control mechanism attached to the handpiece regulates the energization signal applied to the motor so as to regulate motor speed.

46 Claims, 17 Drawing Sheets



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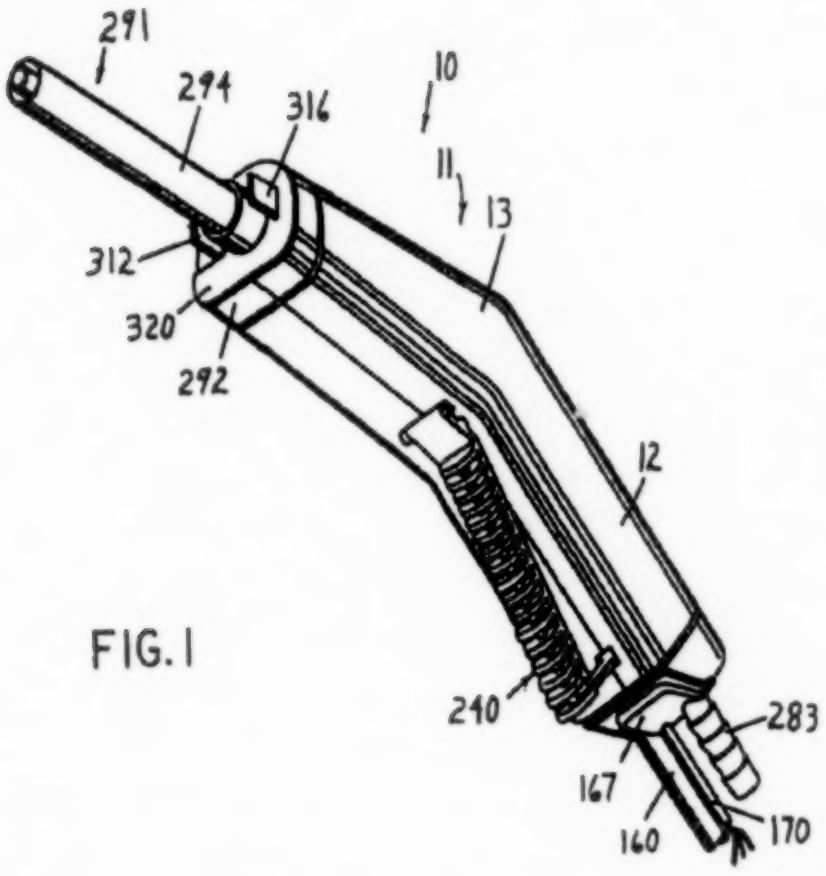

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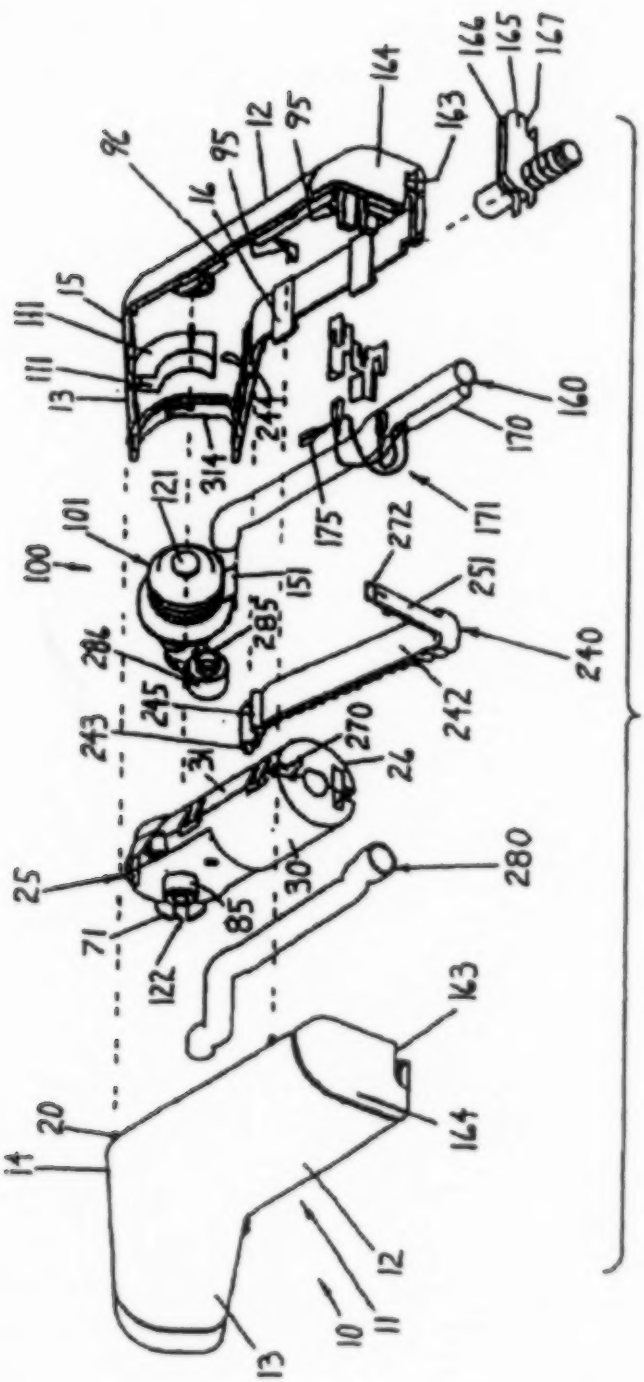
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FIG. 2

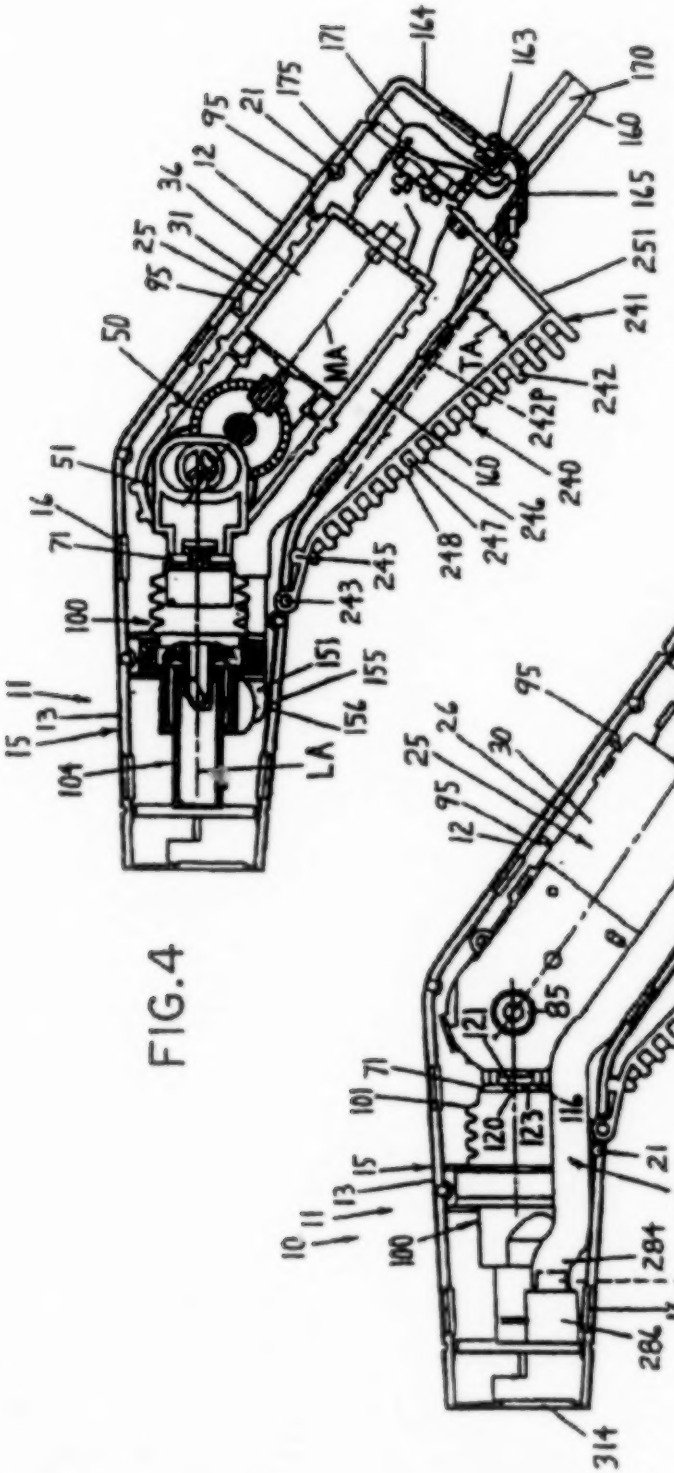
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FIG.4

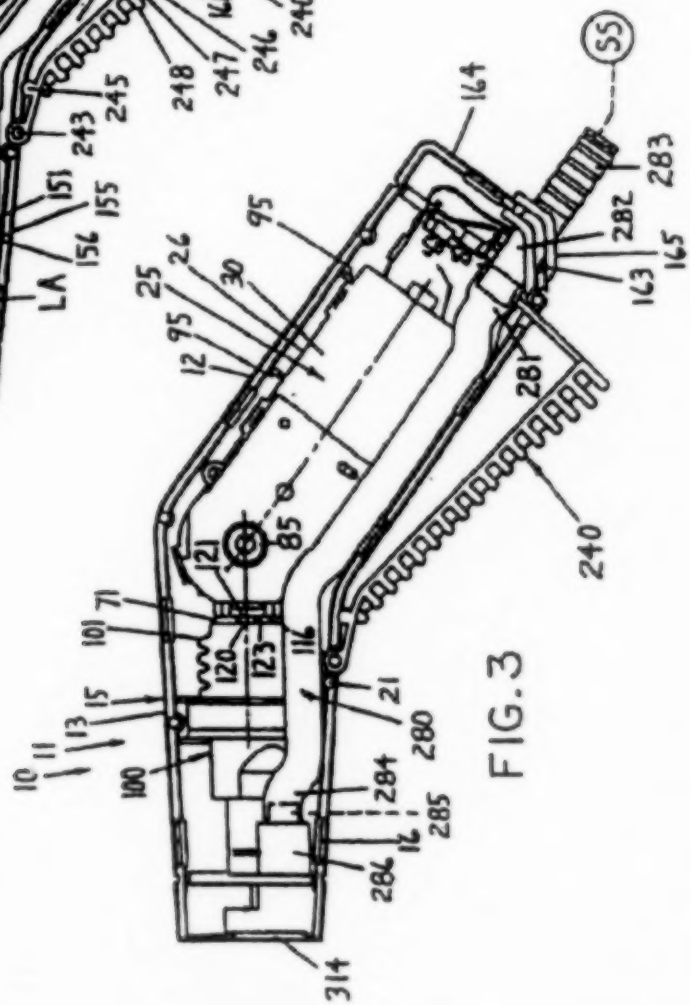
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FIG.3

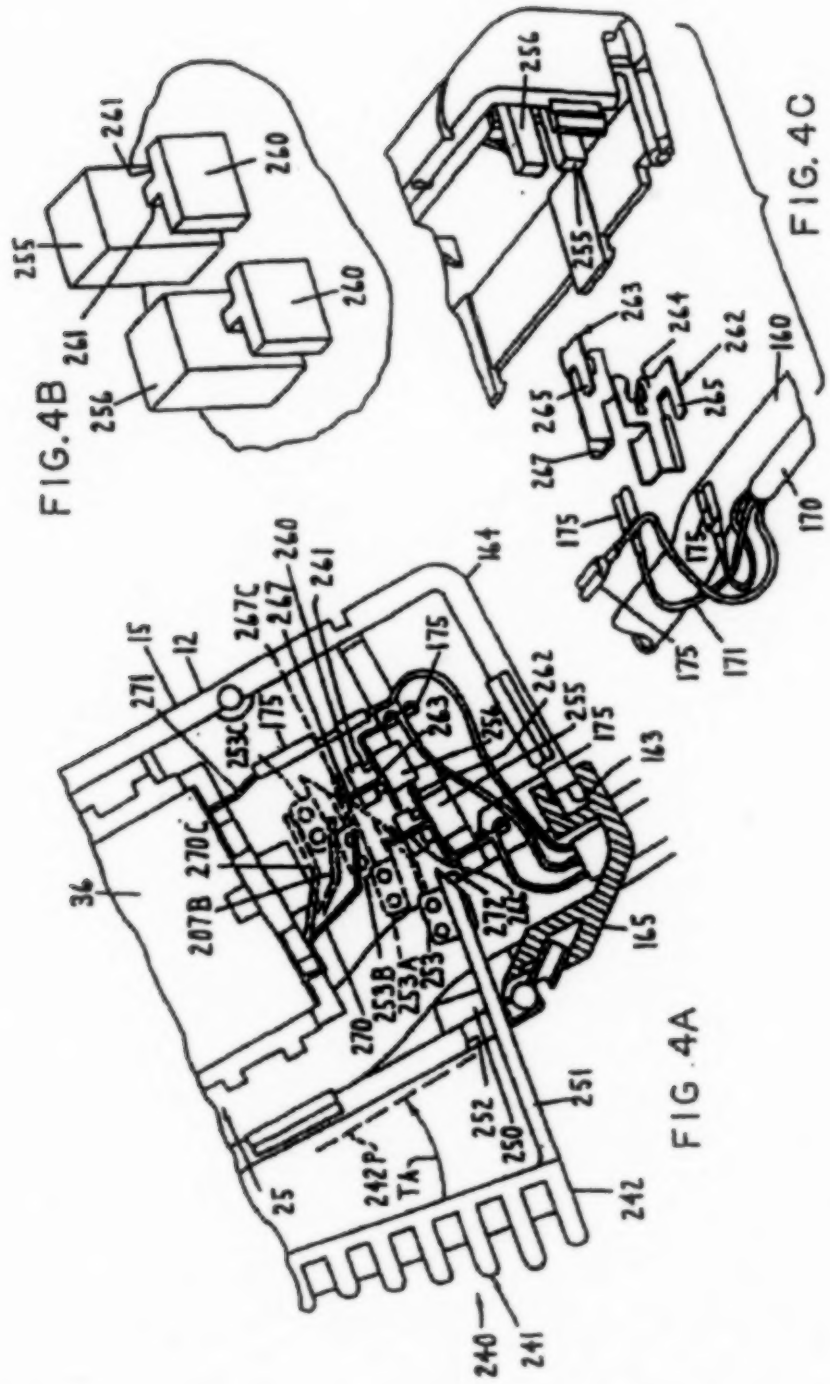
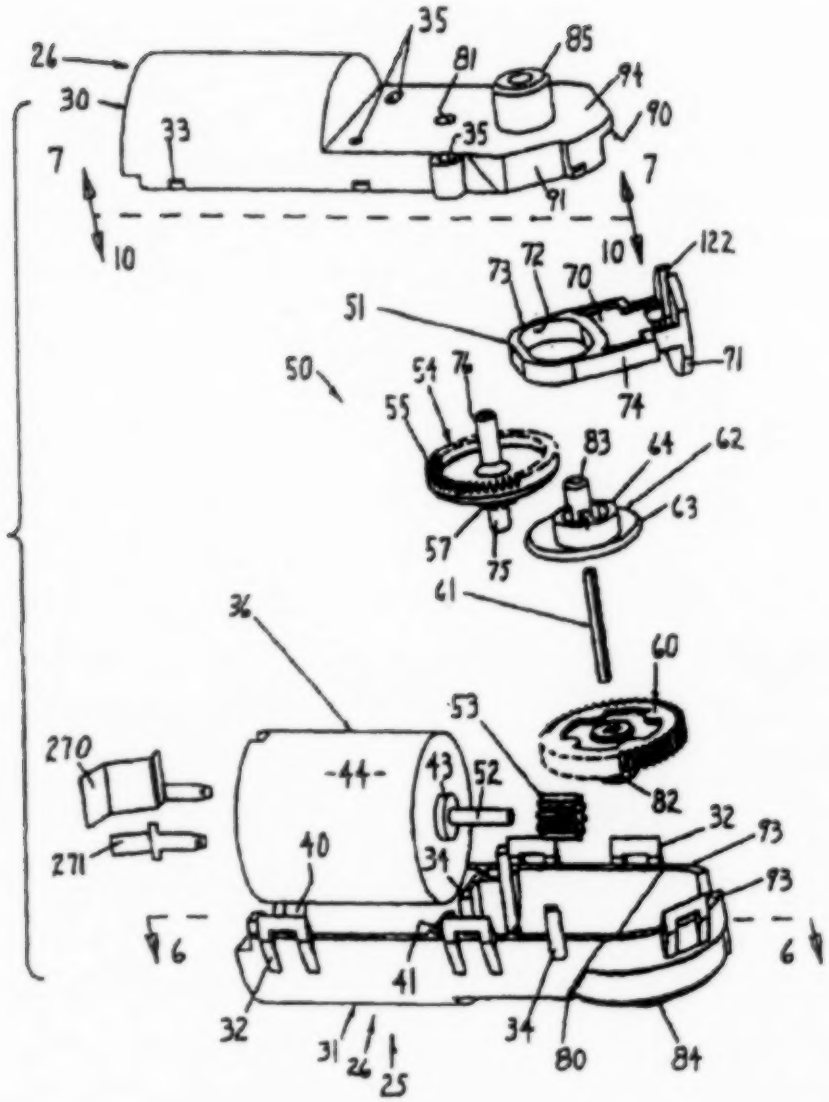


FIG.4B
FIG.4C
FIG.4A

FIG. 5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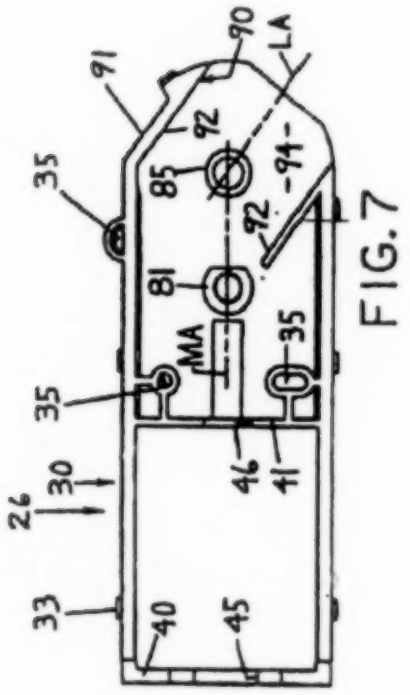
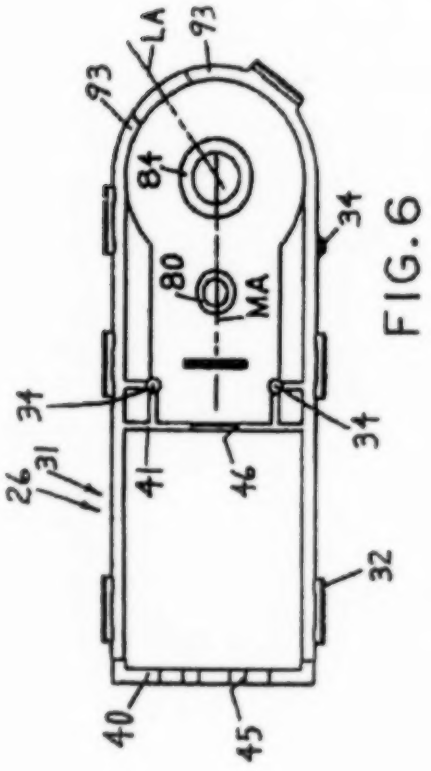


FIG. 7



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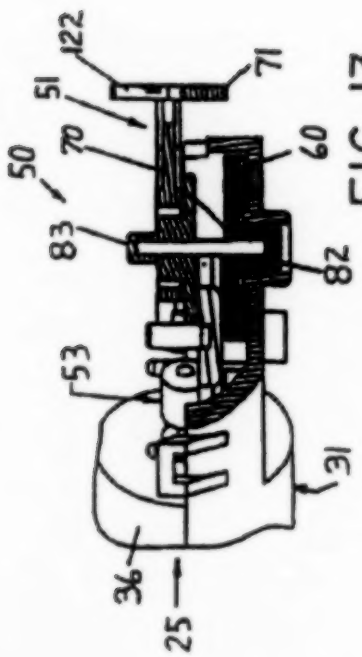

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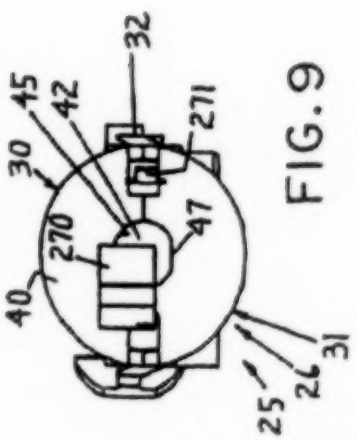

FIG. 9

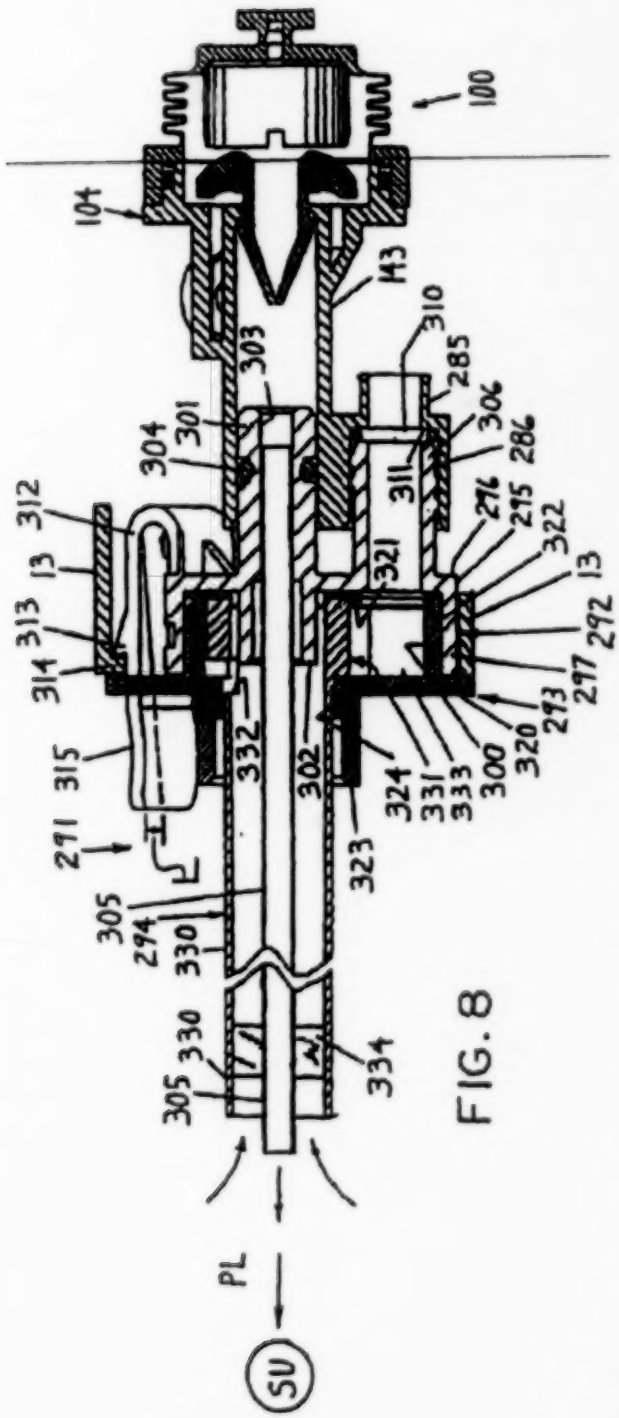
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FIG. 8

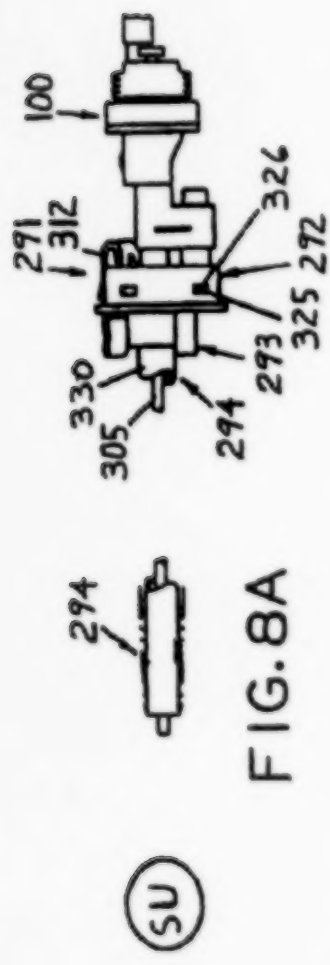
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FIG. 8A

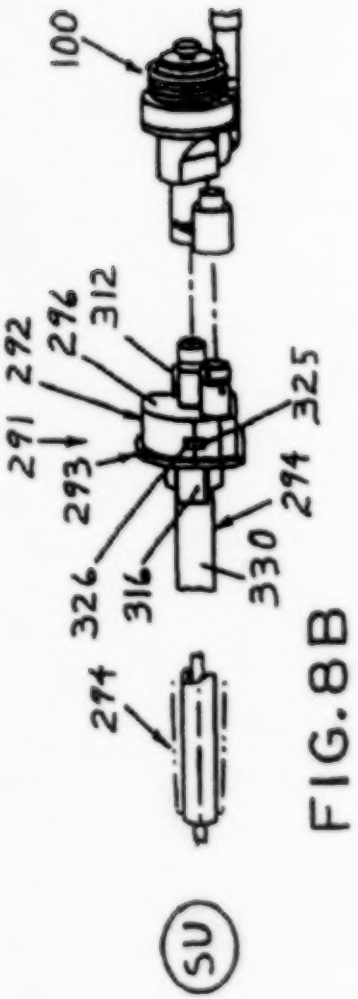
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FIG. 8B

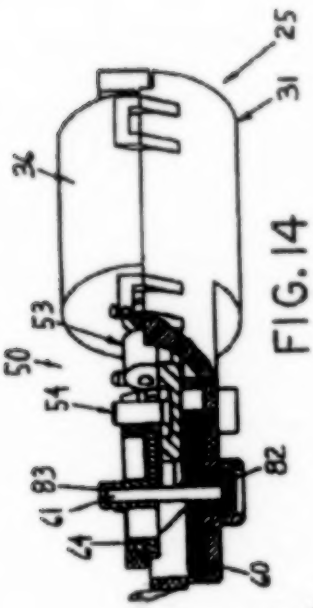

FIG. 14

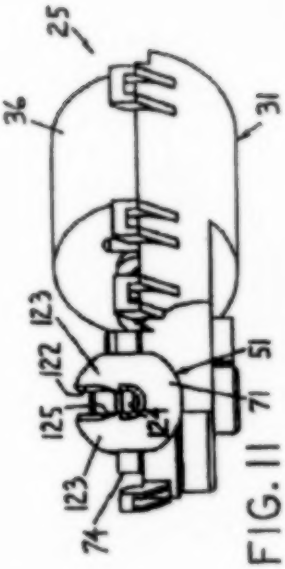

FIG. 11

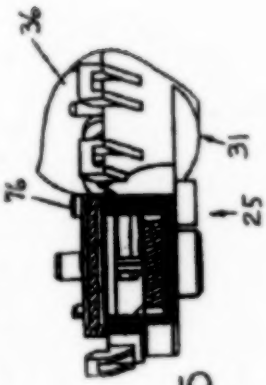

FIG. 15

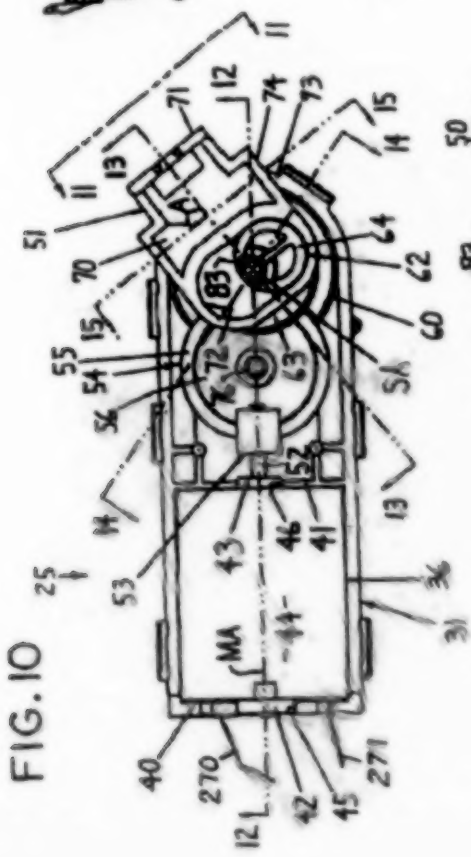

FIG. 10

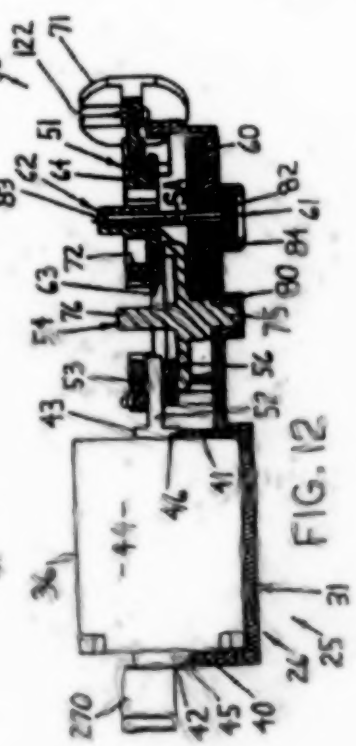

FIG. 12

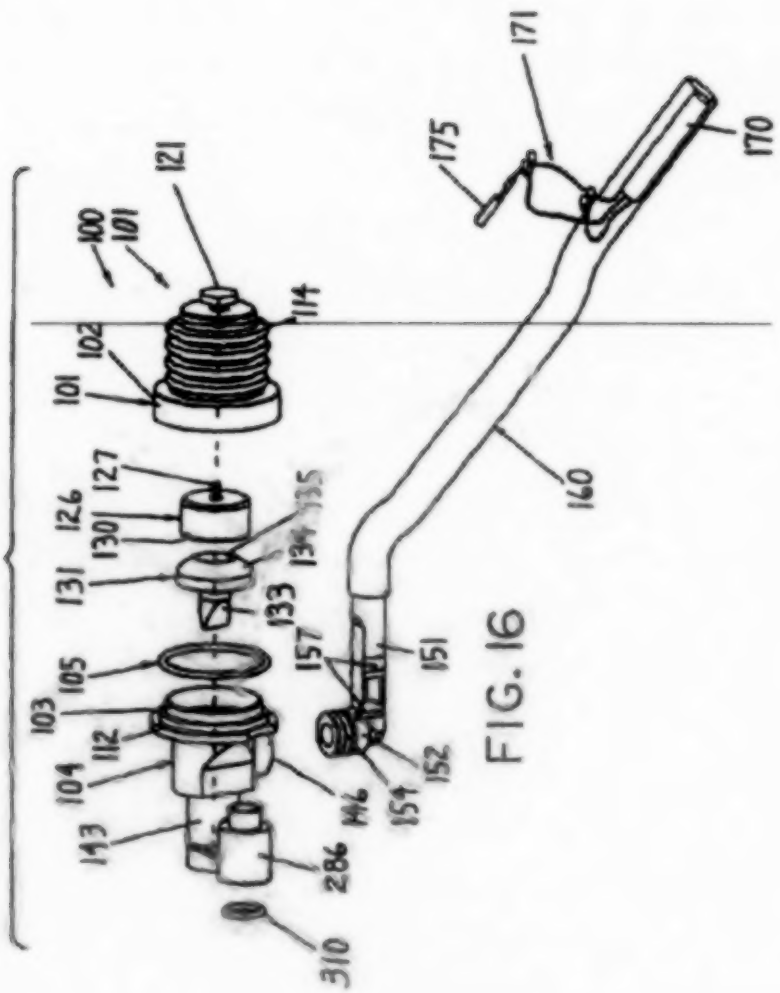
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FIG. 16

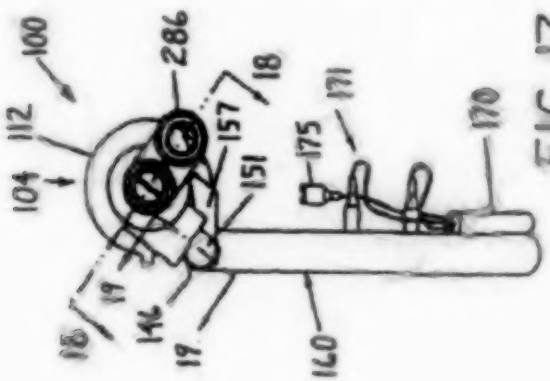
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FIG. 17

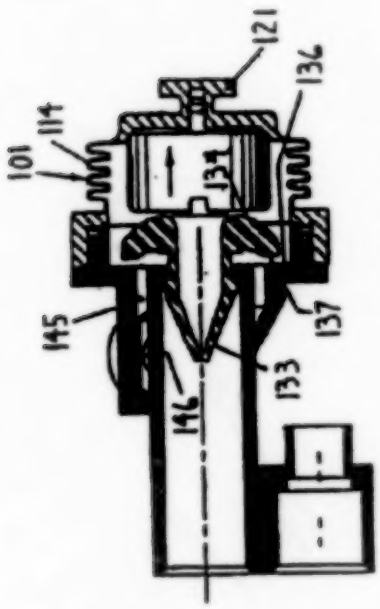
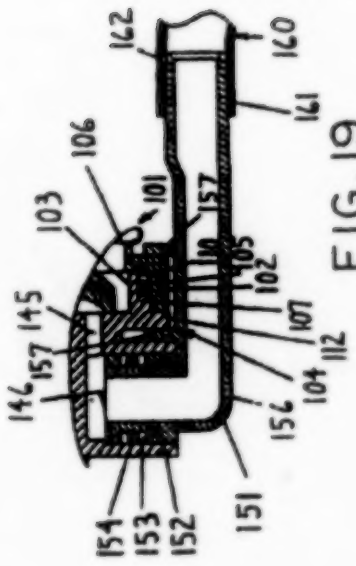


FIG. 18A



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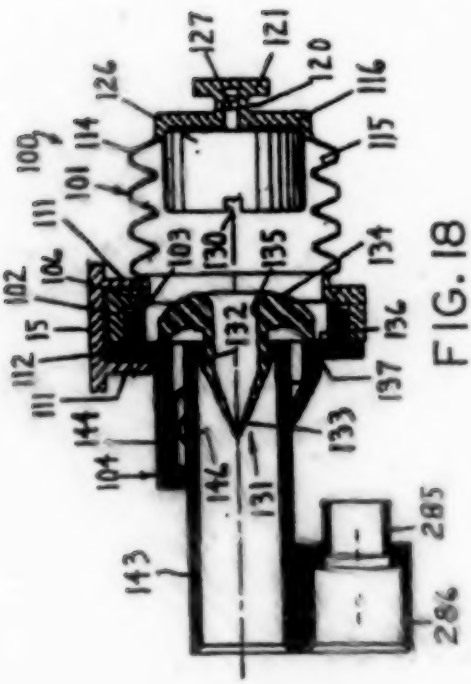

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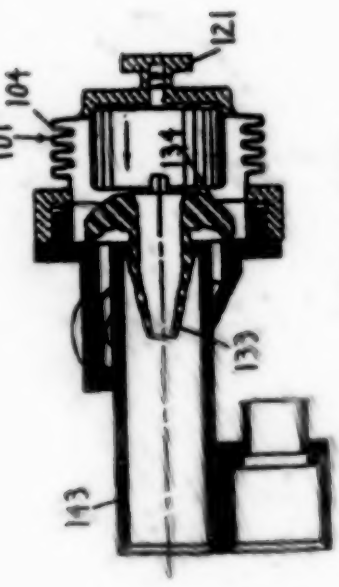


FIG. 18B

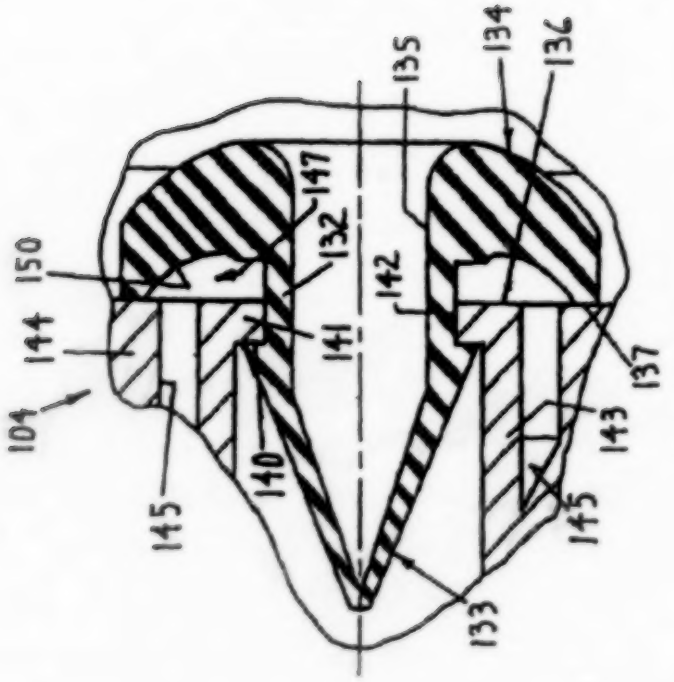


FIG. 18C

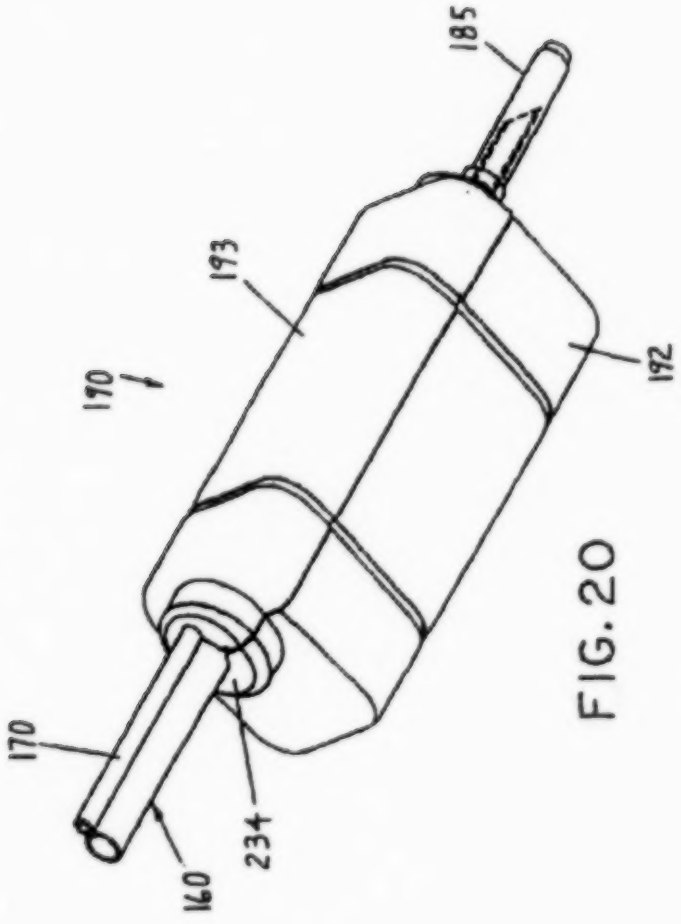
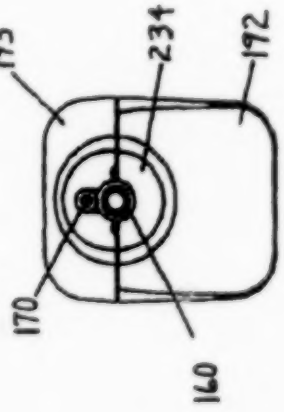


FIG. 20



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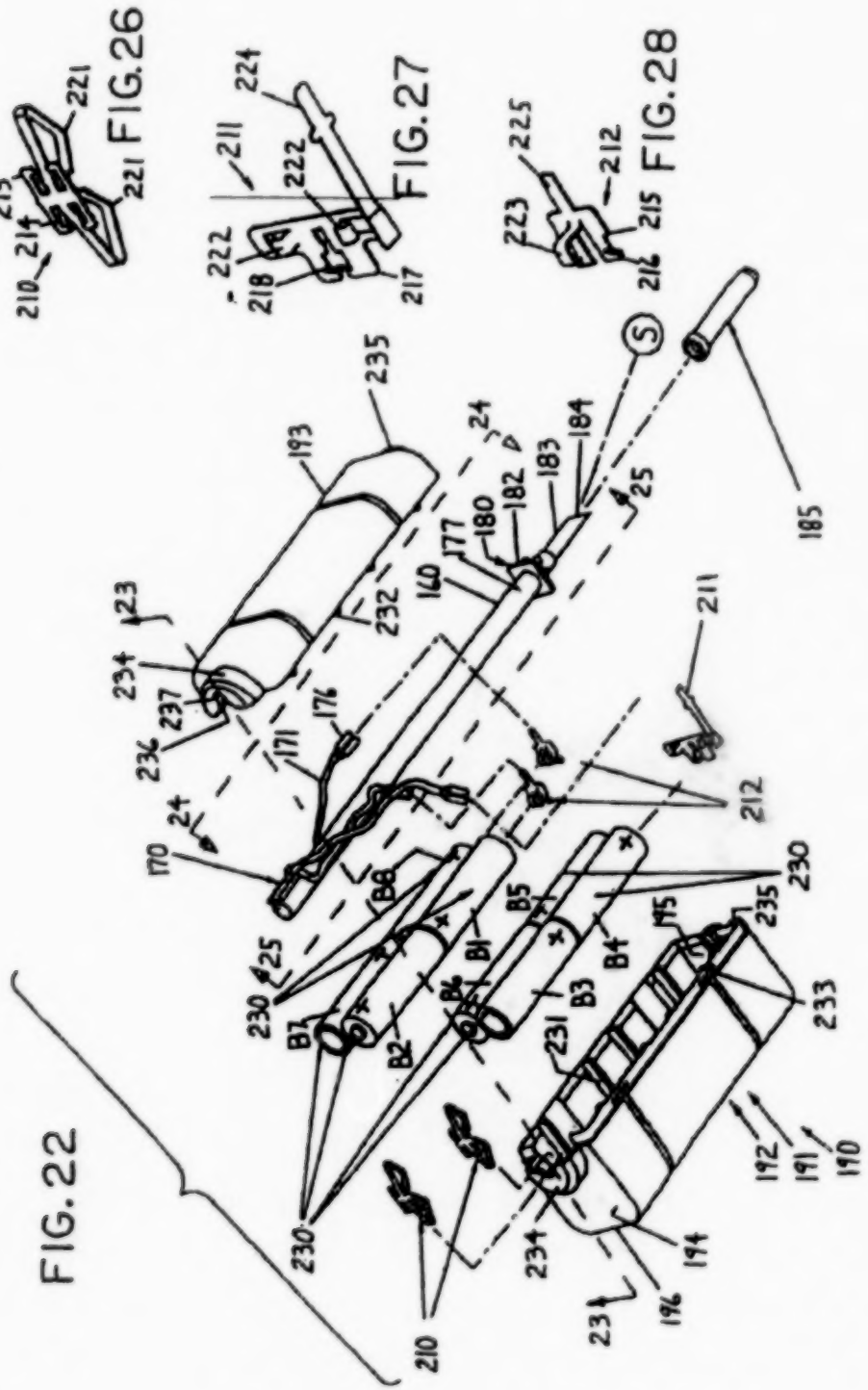
FIG. 22
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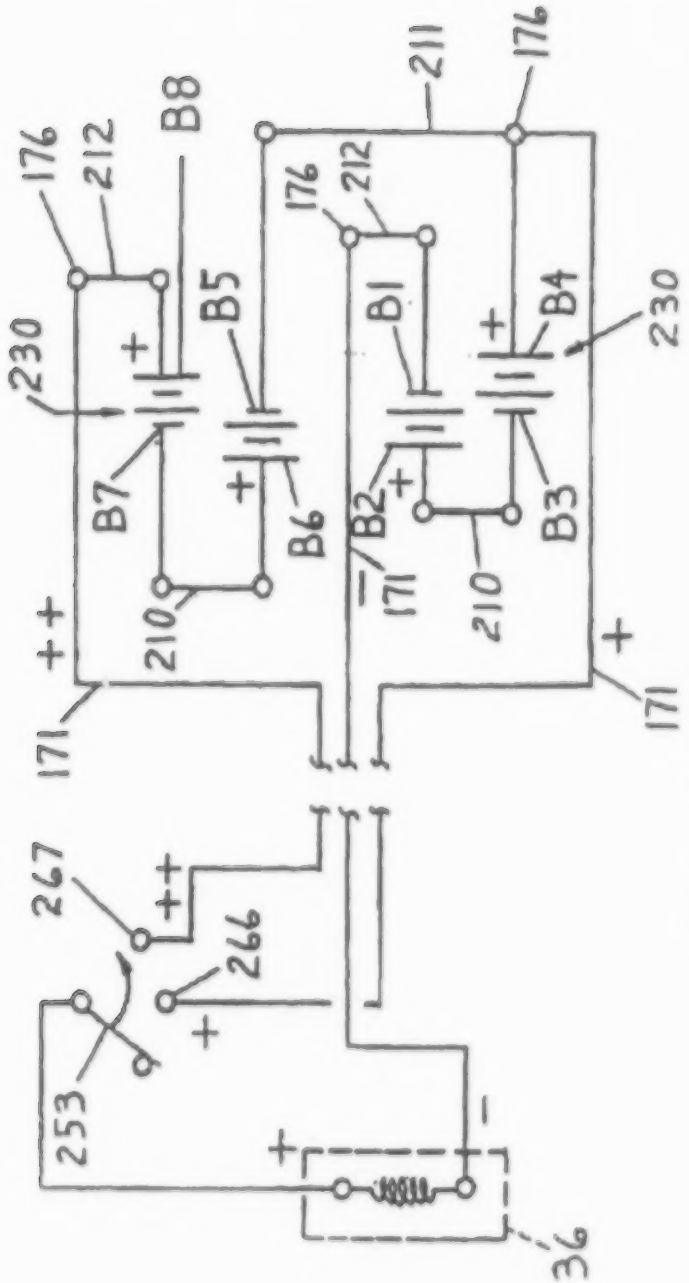
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FIG. 22A

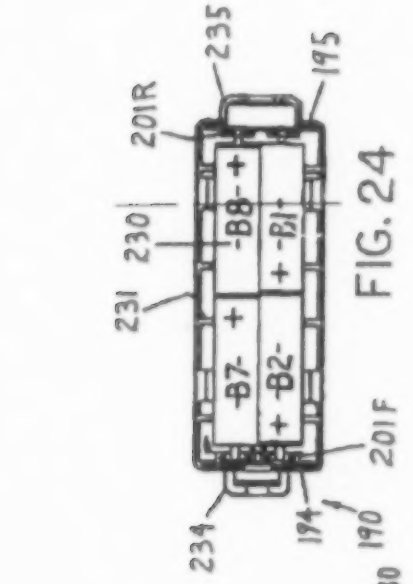


FIG. 24

FIG. 25

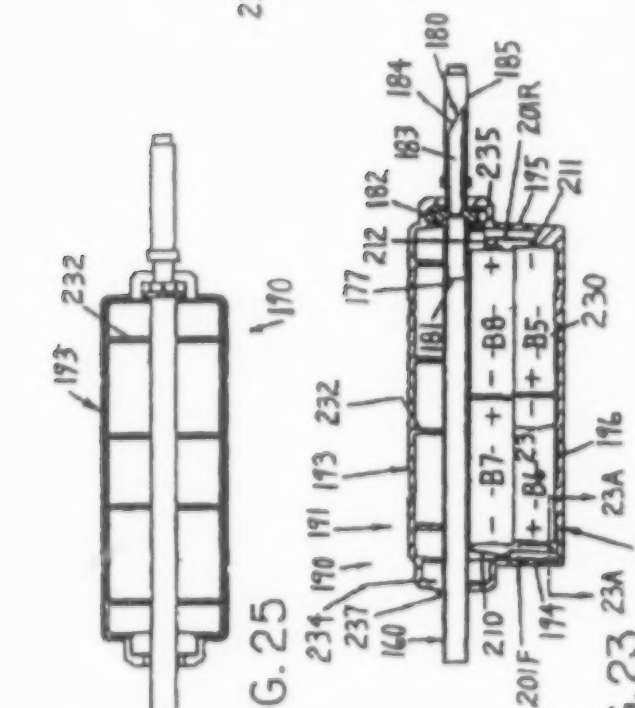


FIG. 23

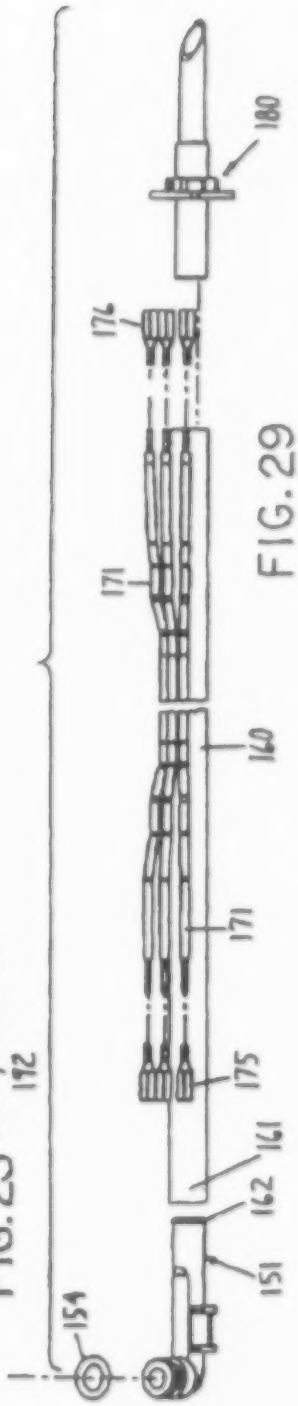


FIG. 29

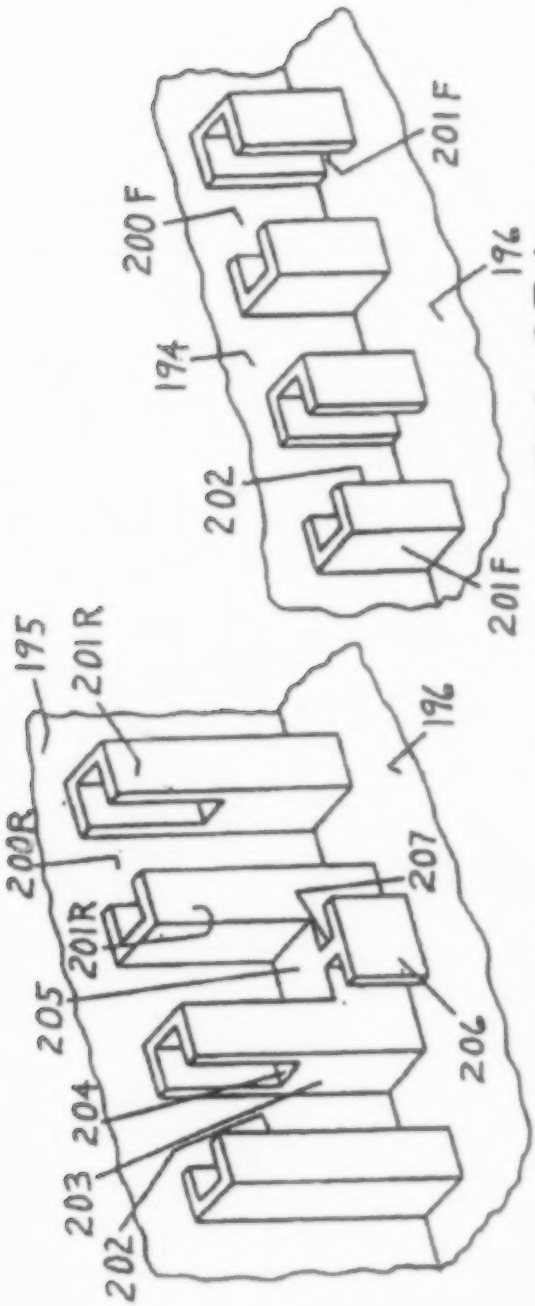
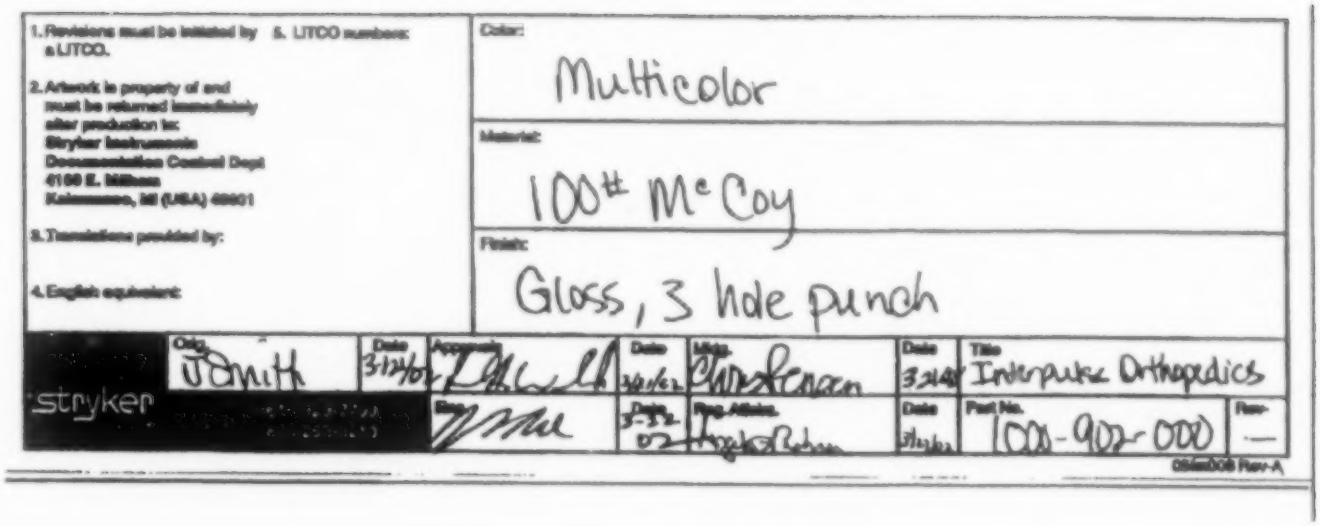


FIG. 23A

FIG. 23B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Date 3/26/07
Title Interpulse Orthopedics
Engr.
Date 3-29-07
Reg. Affairs
Date 3/26/07
Part No. 1000-902-000
Rev. —
0504-008 Rev A

Complete Ordering Information

InterPulse Battery Powered Irrigation

InterPulse Handpiece

PART #	DESCRIPTION
210-100	Interpulse Handpiece with suction
210-110	Interpulse Handpiece with suction with Bone Cleaning Tip
210-110-100	Interpulse Handpiece with suction with Coaxial Bone Cleaning Tip
210-112	Interpulse Handpiece with suction with Soft Tissue Tip
210-114	Interpulse Handpiece with suction with High Flow Tip
210-114-100	Interpulse Handpiece with suction with Coaxial High Flow Tip
210-118	Interpulse Handpiece with suction with Fan Spray Tip
210-118-100	Interpulse Handpiece with suction with Coaxial Fan Spray Tip
210-186	Interpulse Handpiece with Dual Spike Adapter
210-168	Interpulse Handpiece with High Flow Tip with Dual Spike Adapter
210-187	Irrigation only Interpulse Handpiece with High Flow Tip with Dual Spike Adapter
210-200	Irrigation only Interpulse Handpiece
210-210	Irrigation only Interpulse Handpiece with Bone Cleaning Tip
210-212	Irrigation only Interpulse Handpiece with Soft Tissue Tip
210-214	Irrigation only Interpulse Handpiece with High Flow Tip
210-218	Irrigation only Interpulse Handpiece with Fan Spray Tip

Tips and Accessories

PART #	DESCRIPTION
210-1	Wound Tunneling Tip with Suction
210-3	Wound Tunneling Tip
210-4	Femoral Canal Brush
210-6	Femoral Canal Tip (Irrigation Only)
210-7	Coaxial Femoral Canal Tip
210-8	Femoral Canal Tip
210-10	Bone Cleaning Tip
210-10-100	Coaxial Bone Cleaning Tip
210-12	Soft Tissue Tip
210-14	High Flow Tip
210-14-100	Coaxial High Flow Tip
210-16	Irrigation Only Short Tip
210-17	Pulsavac Tip
210-18	Fan Spray (Low Splash) Tip
210-18-100	Coaxial Fan Spray Tip
210-34	Medium Soft Cone Splash Shield
210-312	Soft Tissue Tip with Replacement Suction Tubing
210-318	Fan Spray Tip with Replacement Suction Tubing
211-22	Interpulse Rechargeable Power Pack
211-24	Interpulse Bay Charger
211-100	Interpulse Rechargeable Hand Piece

InterPulse Handpiece, Rechargeable

PART #	DESCRIPTION
211-100	Interpulse Rechargeable Handpiece
211-110	Interpulse Rechargeable Handpiece with Bone Cleaning Tip
211-112	Interpulse Rechargeable Handpiece with Soft Tissue Tip
211-114	Interpulse Rechargeable Handpiece with High Flow Tip
211-118	Interpulse Rechargeable Handpiece with Fan Spray Tip
211-200	Interpulse Rechargeable Irrigation Only Handpiece
211-210	Interpulse Rechargeable Irrigation Only Handpiece with Bone Cleaning Tip
211-212	Interpulse Rechargeable Irrigation Only Handpiece with Soft Tissue Tip
211-214	Interpulse Rechargeable Irrigation Only Handpiece with High Flow Tip
211-218	Interpulse Rechargeable Irrigation Only Handpiece with Fan Spray Tip

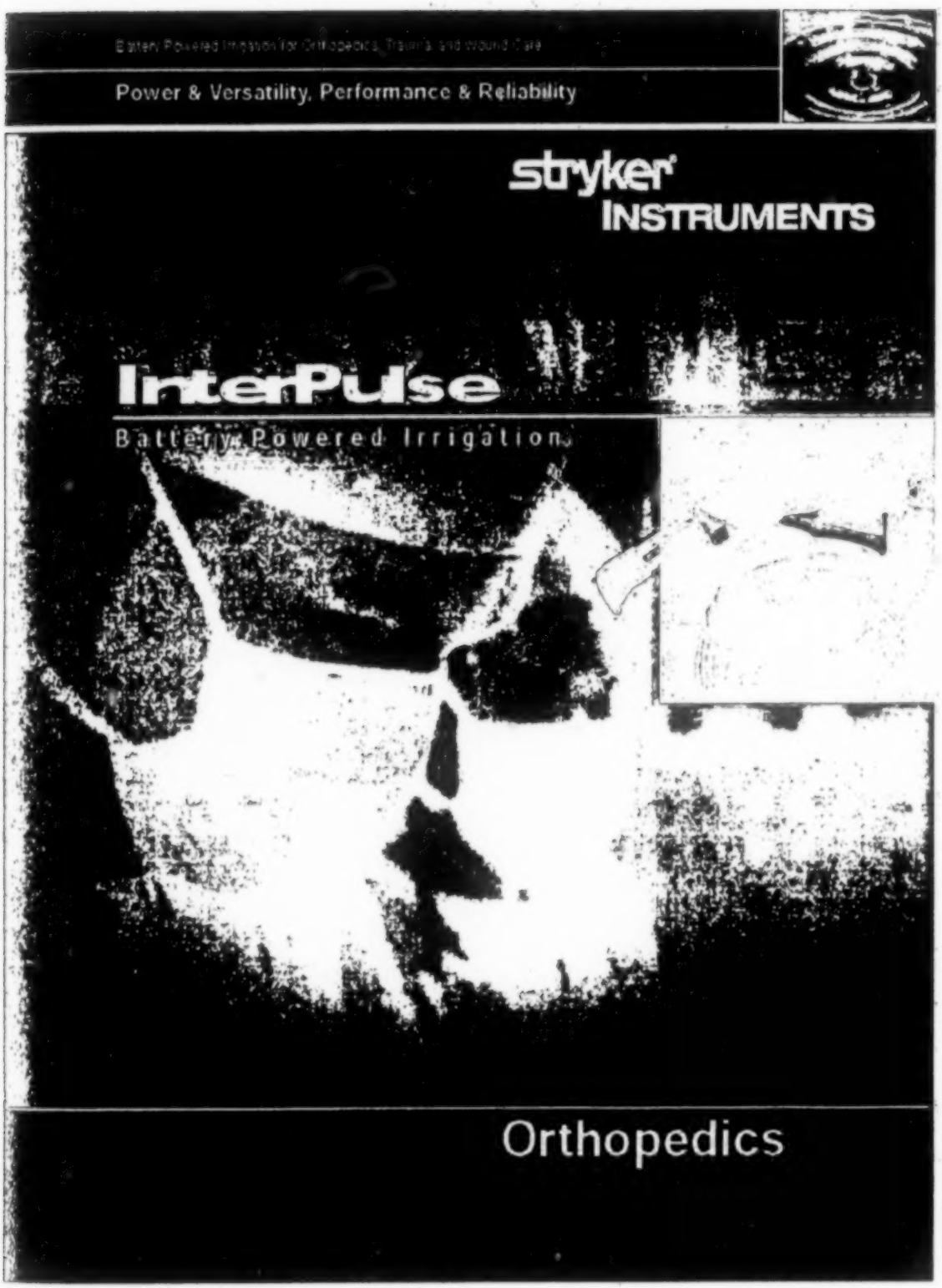
* Dr. Berghoff and Dr. Harris at St. Joseph's Medical Center in Fort Wayne, IN perform a total hip while using the Interpulse.

stryker INSTRUMENTS

For more information, contact your local Stryker Sales Representative.

4100 East Milham Ave
Kalamazoo, MI 49001
(800)253-3210
(616)323-7700

1000-902-000 Rev. None

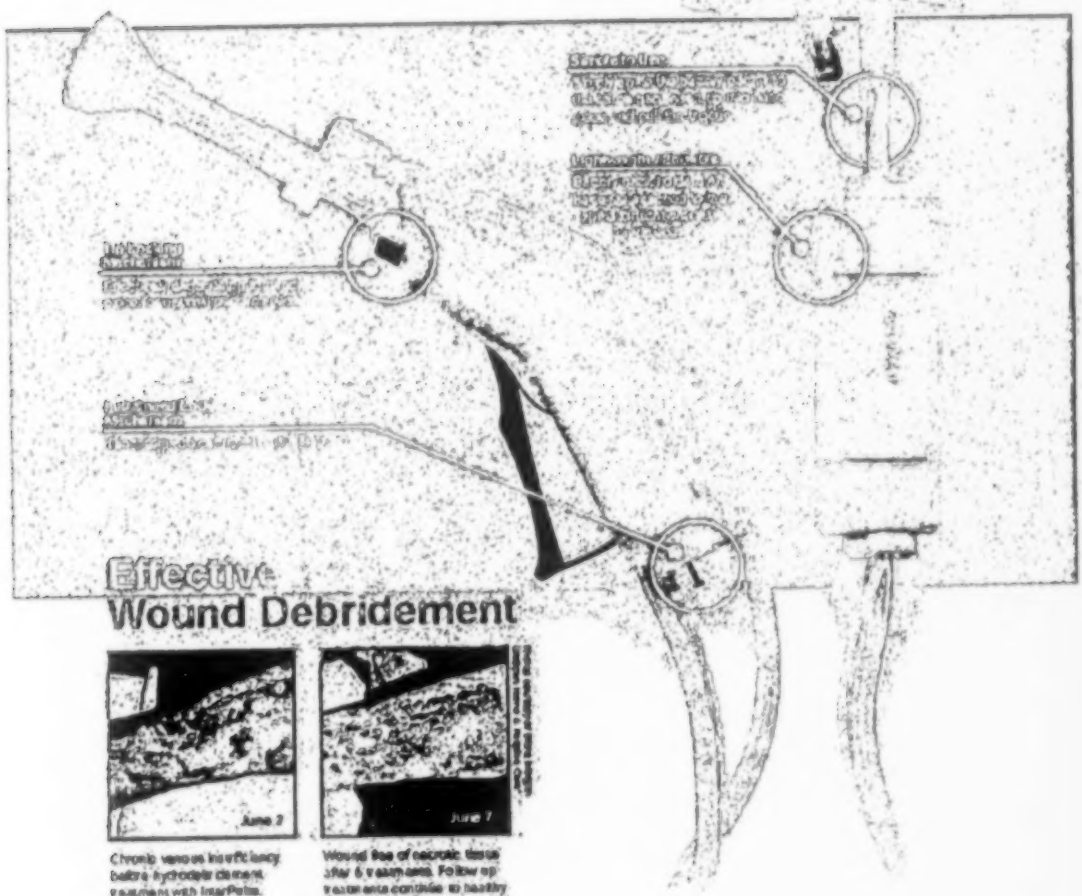

Power & Versatility, Performance & Reliability
stryker
INSTRUMENTS
InterPulse
Battery Powered Irrigation
Orthopedics

Performance, Reliability, Versatility

Use interpulse to prepare the wound bed to heal the wound more quickly

Features/Benefits

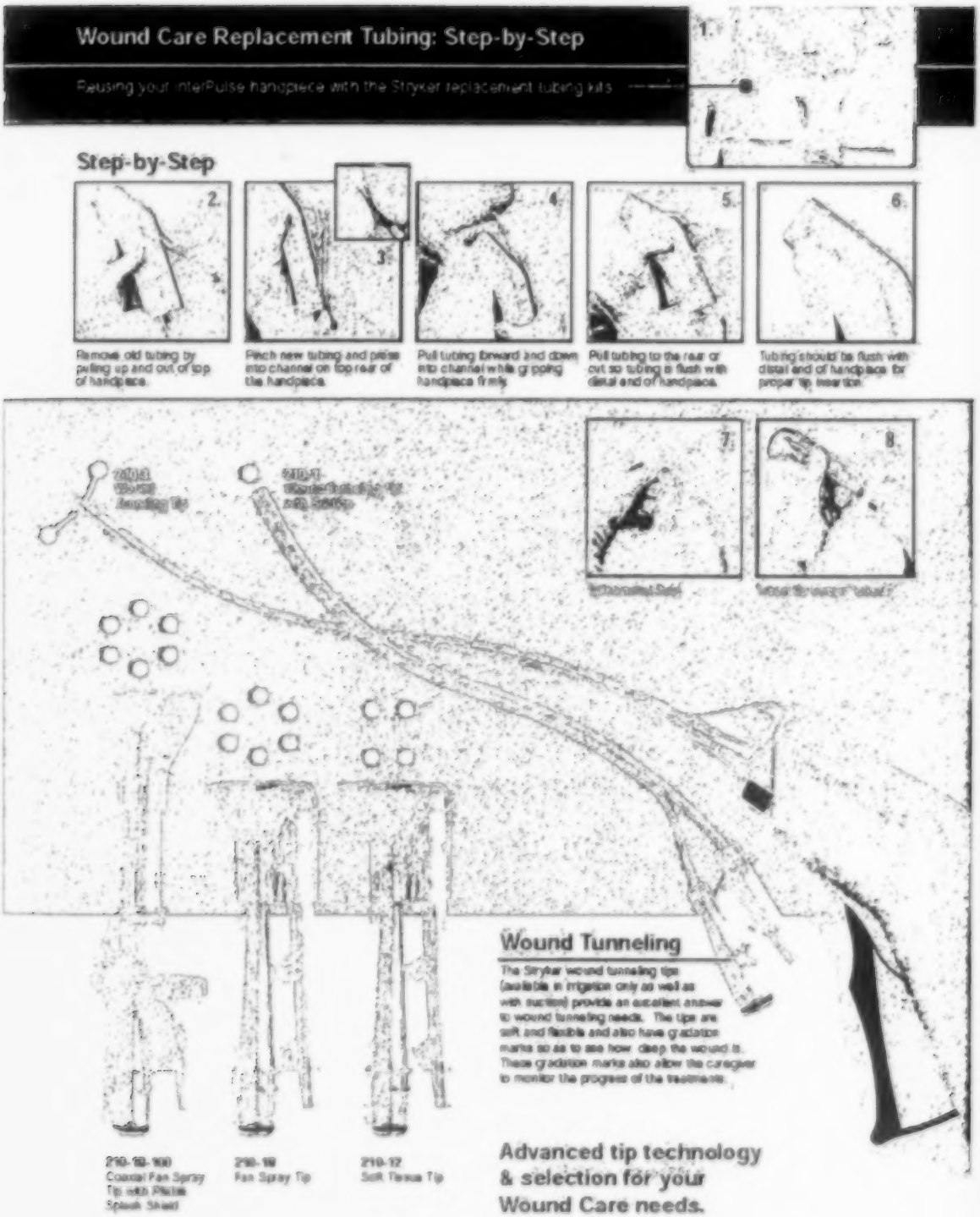
- Ergonomic shape to reduce muscle fatigue
- FDA approved PSI <15
- Single patient use
- Portable
- Cost effective



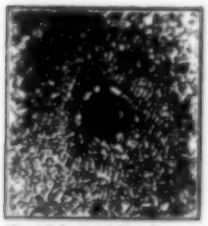
Effective Wound Debridement

Chronic venous insufficiency before hydrogel dement treatment with InterPulse.

Wound free of necrotic tissue after 6 treatments. Follow up treatments promote healthy granulating wound.


Wound Care Replacement Tubing: Step-by-Step
Reusing your InterPulse handpiece with the Stryker replacement tubing kits
Step-by-Step
1.
2.
3.
4.
5.
6.
Remove old tubing by pulling up and out of top of handpiece.
Pinch new tubing and press into channel on top rear of the handpiece.
Pull tubing forward and down into channel while gripping handpiece firmly.
Pull tubing to the rear or cut so tubing is flush with distal end of handpiece.
Tubing should be flush with distal end of handpiece for proper tip insertion.
7.
8.
Wound Tunneling
The Stryker wound tunneling tips (available in irrigation only as well as with suction) provide an excellent answer to wound tunneling needs. The tips are soft and flexible and also have gradation marks so as to see how deep the wound is. These gradation marks also allow the caregiver to monitor the progress of the treatments.
210-19
Fan Spray Tip
210-12
Soft Tissue Tip
Advanced tip technology & selection for your Wound Care needs.

Prior to hydrodebridement using SurgiLav® Plus.



After daily hydrodebridement using SurgiLav® Plus. (duration: 28 treatments)

Consider a safe, simple, and cost effective alternative. .

SURGILAV® PLUS Wound Management System

Safety and Efficacy

"Our studies have measured the impact pressures generated by the various SurgiLav® Plus tips to range from 6.1 to 13.1 psi. These pressures are well within the recommended safety standard of 15 psi for soft tissue wounds. Our clinical experience suggests that SurgiLav® Plus may offer an effective and convenient means of cleansing chronic wounds."

Simplicity

Portable battery powered handpiece

- Wound cleansing can take place virtually anywhere
- Eliminates task of ambulating patient.

Minimal set up required

- Spike bag
- Attach tip
- Pull trigger

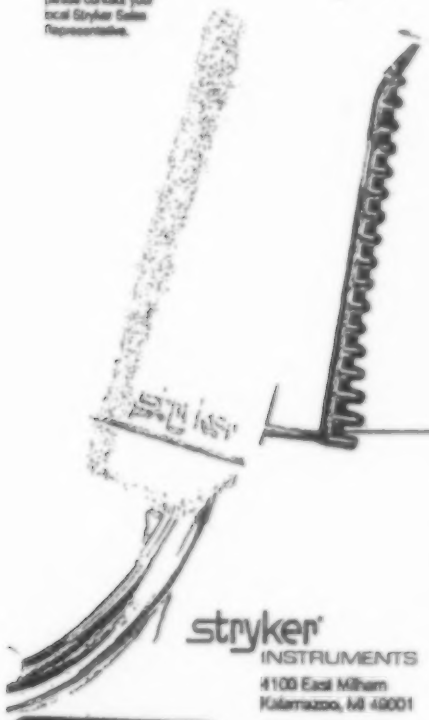
Dual speed settings

Offers suction and irrigation in one simple-to-use package

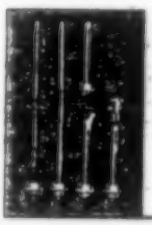
Cost Effectiveness

- Space saving packaging
- Fully disposable
- Saves time over conventional therapies
- A variety of cost saving kits available

For more information, please contact your local Stryker Sales Representative.



Choice

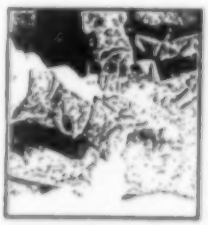


207-65/66 Fan Spray Tip

psi: low = 10.5, high = 11.2
Flow rate: (ml/min) low = 500, high = 750

207-69/81 High Flow Trauma Tip

psi: low = 6.1, high = 13.1
Flow rate: (ml/min) low = 900, high = 1000



When you buy from Stryker, you have chosen to provide the best for your patients and your business.

1,2-dependent testing performed by Dr. George E. Fodstad-ower at the University of Virginia Medical Center "Re-evaluation of the Safety of Stryker Instruments' Surgilav Pro' Irrigation System," May 14, 1993

PLAINTIFF'S EXHIBIT 26

stryker® INSTRUMENTS
4100 East Milham
Kalamazoo, MI 49001

Customer Service
1-800-253-3210
FAX 1-800-999-3811

	1994	1995	1996	1997
Capital Equipment				
Zimmer	$15.63	$15.92	$19.75	$17.96
% Growth		1.82%	19.39%	-9.97%
Stryker	$18.47	$19.83	$21.21	$20.18
% Growth		6.86%	6.51%	-5.10%
Davol	N/A	N/A	N/A	N/A
% Growth				
Disposables				
Zimmer	N/A	N/A	$37.77	$35.07
% Growth				-7.70%
Stryker	$26.08	$27.26	$26.27	$24.83
% Growth		4.33%	-3.77%	-5.80%
Davol	$21.18	$22.78	$34.35	$27.11
% Growth		7.02%	33.68%	-26.71%

Product Release Inventory Requirements:

No. Of Sets	Dollar Value	Time Required
600 (sale units)	96000	7 weeks

Sales Forecast

			Year 1	Year 2	Year 3	Year 4	Year 5
New Product							
PulsaJet	Units		173,800	300,379	378,173	467,263	566,587
	Dollars		$ 5,214,000	$ 7,773,809	$ 9,824,935	$12,130,147	$14,725,440
	A.S.P.		$ 30.00	$ 25.88	$ 25.98	$ 25.96	$ 25.99
Existing Product							
Pulsavac	Units		843,301	783,903	728,211	675,170	627,732
	Dollars		$12,700,617	$12,509,328	$12,322,298	$12,137,523	$11,955,001
	A.S.P.		$ 15.06	$ 15.96	$ 16.92	$ 17.97	$ 19.04
* *Var-A-Pulse*	Units		36,800	36,800	35,800	35,800	34,800
	Dollars		$ 1,290,576	$ 1,290,576	$ 1,255,506	$ 1,255,506	$ 1,220,436
	A.S.P.		$ 35.07	$ 35.07	$ 35.07	$ 35.07	$ 35.07
Incremental							
PulsaJet	Units		137,000	263,579	342,373	431,463	531,781
	Dollars		$ 3,923,424	$ 6,483,233	$ 8,569,429	$10,874,641	$13,505,004

* The hypothetical forecast for Var-A-Pulse is supplied for reference only. This product will be discontinued upon release of the Pulsajet.

Manufacturing Build Plan:

	Year 1	Year 2	Year 3	Year 4	Year 5
New Product					
PulsaJet	173800	300379	378173	467263	566587
Existing Product					
Pulsavac	843301	783903	728211	675170	627732
Var-A-Pulse	0	0	0	0	0

Standard Cost Estimates

High

	Year 1	Year 2	Year 3	Year 4	Year 5
New Products					
PulseJet	18.00	17.10	17.61	18.14	18.69
Existing Products					
Var-A-Pulse	19.25	19.83	20.42	21.04	21.67
Incremental					
	-1.25	-2.73	-2.81	-2.90	-2.98

Medium

	Year 1	Year 2	Year 3	Year 4	Year 5
New Products					
PulseJet	16.00	16.00	16.32	16.65	16.97
Existing Products					
Var-A-Pulse	18.69	19.06	19.45	19.83	20.23
Incremental					
	-2.69	-3.06	-3.13	-3.18	-3.26

Low

	Year 1	Year 2	Year 3	Year 4	Year 5
New Products					
PulseJet	15.00	15.00	15.15	15.30	15.45
Existing Products					
Var-A-Pulse	18.00	18.18	18.36	18.55	18.73
Incremental					
	-3.00	-3.18	-3.21	-3.25	-3.28

mmer

Orthopedic Implant Division

PulsaJet Battery System

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Units				-		-
Existing		36,800	36,800	35,800	35,800	34,800
New		133,800	300,379	378,173	467,263	566,587
Incremental		137,000	263,579	342,373	431,463	531,787
Sales						
Existing		$ 1,290,576	$ 1,290,576	$ 1,253,506	$ 1,255,506	$ 1,220,436
New		$ 5,214,000	$ 7,773,999	$ 9,824,935	$ 12,130,147	$ 14,723,440
Incremental		$ 3,923,424	$ 6,483,233	$ 8,569,429	$ 10,874,641	$ 13,503,004
Cost of Goods Sold						
Incremental		$ 2,192,000	$ 4,217,264	$ 5,477,968	$ 6,903,408	$ 8,508,592
Cost of Goods Sold	$ -	$ 2,192,000	$ 4,217,264	$ 5,477,968	$ 6,903,408	$ 8,508,592
Gross Profit	$ -	$ 1,731,424	$ 2,265,969	$ 3,091,461	$ 3,971,233	$ 4,994,412
Program Expense Budget						
Travel	(8,000)	$ (9,500)				
Engineering	(150,800)	$ (40,280)	$ -	$ -	$ -	$ -
Clinical and other R&D Costs	(46,000)	(1,800)			-	-
	$ (204,800)	$ (50,780)	$ -	$ -	$ -	$ -
Royalties		$ -	$ -	$ -	$ -	$ -
Commissions		$ 306,122	$ 836,337	$ 1,103,456	$ 1,402,829	$ 1,762,146
Promotions						
Advertising		$ 24,000	$ -	$ -	$ -	$ -
Promotion		208,000	82,000	57,000	57,000	57,000
Training		10,000	3,000	3,000	3,000	3,000
Other (Durotrom)		2,000	-	-	-	-
Total Advertising and Promotion		$ 244,000	$ 85,000	$ 60,000	$ 60,000	$ 60,000
Total Costs	$ (204,800)	$ 499,342	$ 921,337	$ 1,163,456	$ 1,462,829	$ 1,822,146
Net Revenue	$ (204,800)	$ 1,032,082	$ 1,344,632	$ 1,928,005	$ 2,508,404	$ 3,194,266
Total Cash Flows After Discounting at 12%	$5,863,457					
Return on Sales		26.3%	20.7%	22.5%	23.1%	23.7%
Capital Requirements						
Tooling	303,500					

Return on Investment and Payback Calculation
($ 000's Omitted)

GROUP/DIVISION Orthopaedic Implant	LOCATION	DATE 10-Mar-98	RETURN ON INVESTMENT 157.22%
PROJECT TITLE Pulsajet Battery System			PAYBACK PERIOD 0.7 YEARS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					Net Income or Savings								
Calendar Year	Time Frame	Total Investment	Dir. Earnings Before Depr., COM, & Inc. Taxes	Depreciation	Before Depr. & I.T. (Col. 4-5)	After Depr. & I.T. (Col. 6 x 62%)	Reinv. & Recovery of Assets	Total Cash Return (Col. 5+7+8)	Net Cash Flow (Col. 9-3)	Discount Factor @ 157.22%	Discount Cash Flow Column (Col. 10x11)	Discount Factor @ -	Discount Cash Flow Column (Col. 10x13)
	-3												
	-2												
	-1												
1998	Ref. Pt.	$508.3	-	-	-	-		-	($508.3)	1.0000	($508.30)	1.0000	
1998	1	50.8	1,082.9	88.7	994.2	617.8		704.3	653.5	0.3888	254.08		
2000	2		1,344.8	81.9	1,262.7	795.3		857.2	857.2	0.1511	129.52		
2001	3		1,926.0	44.2	1,881.8	1,166.7		1,210.9	1,210.9	0.0588	71.20		
2002	4		2,506.4	31.6	2,476.8	1,535.6		1,567.2	1,567.2	0.0228	35.73		
2003	5		3,194.3	26.3	3,168.0	1,964.2		1,990.5	1,990.5	0.0089	17.72		
2004	6		-	26.3	(26.3)	(16.3)		10.0	10.0	0.0035	0.04		
2005	7		-	26.3	(26.3)	(16.3)		10.0	10.0	0.0013	0.01		
2006	8		-		-	-		-	-	0.0005	-		
2007	9		-		-	-		-	-	0.0002	-		
2008	10		-		-	-		-	-	0.0001	-		
N/A	Total	$559.1	$10,056.2	$303.3	$9,752.9	$6,048.8	-	$6,350.1	$5,791.0	N/A	-	N/A	-

Zimmer
Orthopedic Implant Division
PulsaJet Battery System

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Units						
Existing		36,800	36,800	35,800	35,800	34,800
New		173,800	308,379	379,173	467,363	566,587
Incremental		137,000	265,579	343,373	431,463	531,787
Sales						
Existing		$ 1,290,576	$ 1,290,576	$ 1,253,506	$ 1,253,506	$ 1,220,436
New		$ 5,214,000	$ 7,773,809	$ 9,824,925	$ 12,130,147	$ 14,723,440
Incremental		$ 3,923,424	$ 6,483,233	$ 8,569,429	$ 10,874,641	$ 13,503,004
Cost of Goods Sold						
Incremental		$ 2,192,000	$ 4,217,264	$ 5,477,948	$ 6,903,488	$ 8,308,592
Cost of Goods Sold	$ -	$ 2,192,000	$ 4,217,264	$ 5,477,948	$ 6,903,488	$ 8,308,592
Gross Profit	$ -	$ 1,731,424	$ 2,265,969	$ 3,091,481	$ 3,971,153	$ 4,994,412
Program Expense Budget						
Travel	(12,000)	$ (15,000)				
Engineering	(194,372)	$ (108,680)	$ -	$ -	$ -	$ -
Clinical and other R&D Costs	(72,500)	(7,000)			-	-
	$ (283,075)	$ (130,680)	$ -	$ -	$ -	$ -
Royalties		$ -	$ -	$ -	$ -	$ -
Commissions		$ 506,122	$ 836,337	$ 1,105,456	$ 1,402,829	$ 1,742,146
Promotions						
Advertising		$ 34,000	$ -	$ -	$ -	$ -
Promotion		203,000	82,000	57,000	57,000	57,000
Training		16,000	3,000	3,000	3,000	3,000
Other (Durotrax)		3,000	-	-	-	-
Total Advertising and Promotion		$ 344,000	$ 85,000	$ 60,000	$ 60,000	$ 60,000
Total Costs	$ (283,075)	$ 619,442	$ 921,337	$ 1,165,456	$ 1,462,829	$ 1,802,146
Net Revenue	$ (283,075)	$ 1,111,982	$ 1,344,632	$ 1,926,025	$ 2,508,324	$ 3,192,266
Total Cash Flows After Discounting at 12%	$3,856,447					
Return on Sales		28.3%	20.7%	22.5%	23.1%	23.7%
Capital Requirements						
Tooling	412,500					

Return on Investment and Payback Calculation
($ 000's Omitted)

GROUP/DIVISION	LOCATION	DATE	RETURN ON INVESTMENT
Orthopaedic Implant		10-Mar-98	113.00%
PROJECT TITLE			**PAYBACK PERIOD**
Pulsajet Battery System			0.9 YEARS

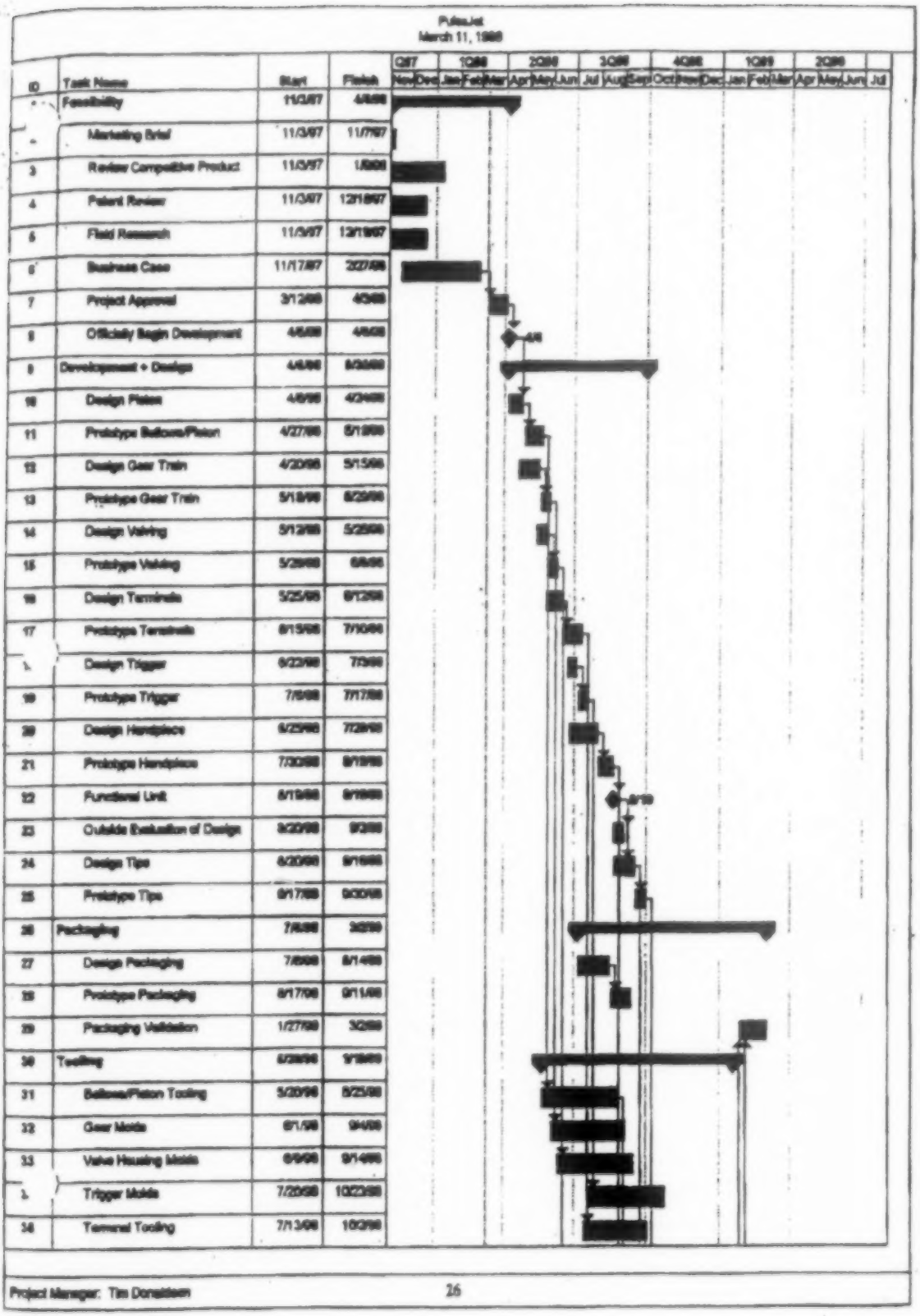
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					Net Income or Savings								
Calendar Year	Time Frame	Total Investment	Otr. Earnings Before Depr., COM, & Inc. Taxes	Depreciation	Before Depr. & I.T. (Col. 4-5)	After Depr. & I.T. (Col. 6 x 62%)	Reinv. & Recovery of Assets	Total Cash Return (Col. 5+7+8)	Net Cash Flow (Col. 9-3)	Discount Factor @ 113.00%	Discount Cash Flow Column (Col. 10x11)	Discount Factor @ -	Discount Cash Flow Column (Col. 10x13)
	-3												
	-2												
	-1												
1998	Ref. Pt.	$765.6	-	-	-	-		-	($765.6)	1.0000	($765.60)	1.0000	
1999	1	130.7	1,242.7	137.9	1,104.8	685.0		822.9	692.2	0.4695	324.99		
2000	2		1,344.8	98.8	1,246.1	772.6		871.1	871.1	0.2204	191.99		
2001	3		1,926.0	70.3	1,855.7	1,150.5		1,220.8	1,220.8	0.1035	126.35		
2002	4		2,508.4	50.2	2,458.2	1,524.1		1,574.3	1,574.3	0.0486	76.51		
2003	5		3,194.3	41.9	3,152.4	1,954.5		1,996.4	1,996.4	0.0228	45.52		
2004	6		-	41.9	(41.9)	(26.0)		15.9	15.9	0.0107	0.17		
2005	7		-	41.9	(41.9)	(26.0)		15.9	15.9	0.0050	0.08		
2006	8		-		-	-		-	-	0.0024	-		
2007	9		-		-	-		-	-	0.0011	-		
2008	10		-		-	-		-	-	0.0005	-		
N/A	Total	$896.3	$10,216.0	$482.6	$9,733.4	$6,034.7	-	$6,517.3	$5,621.0	N/A	$0.01	N/A	

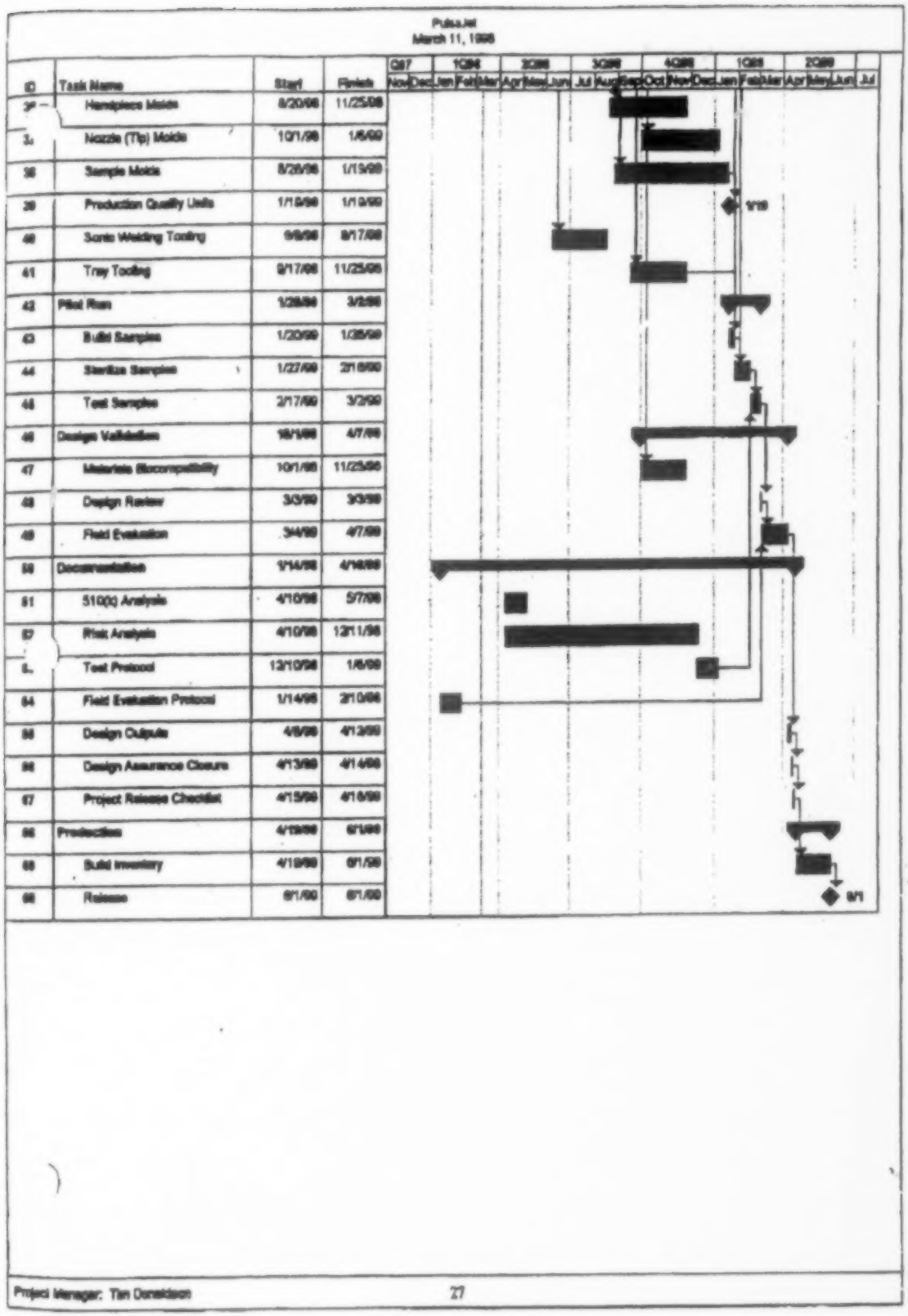
PulsaJet
$16.00 Target Cost
Estimated "Best Case" DEVELOPMENT COSTS

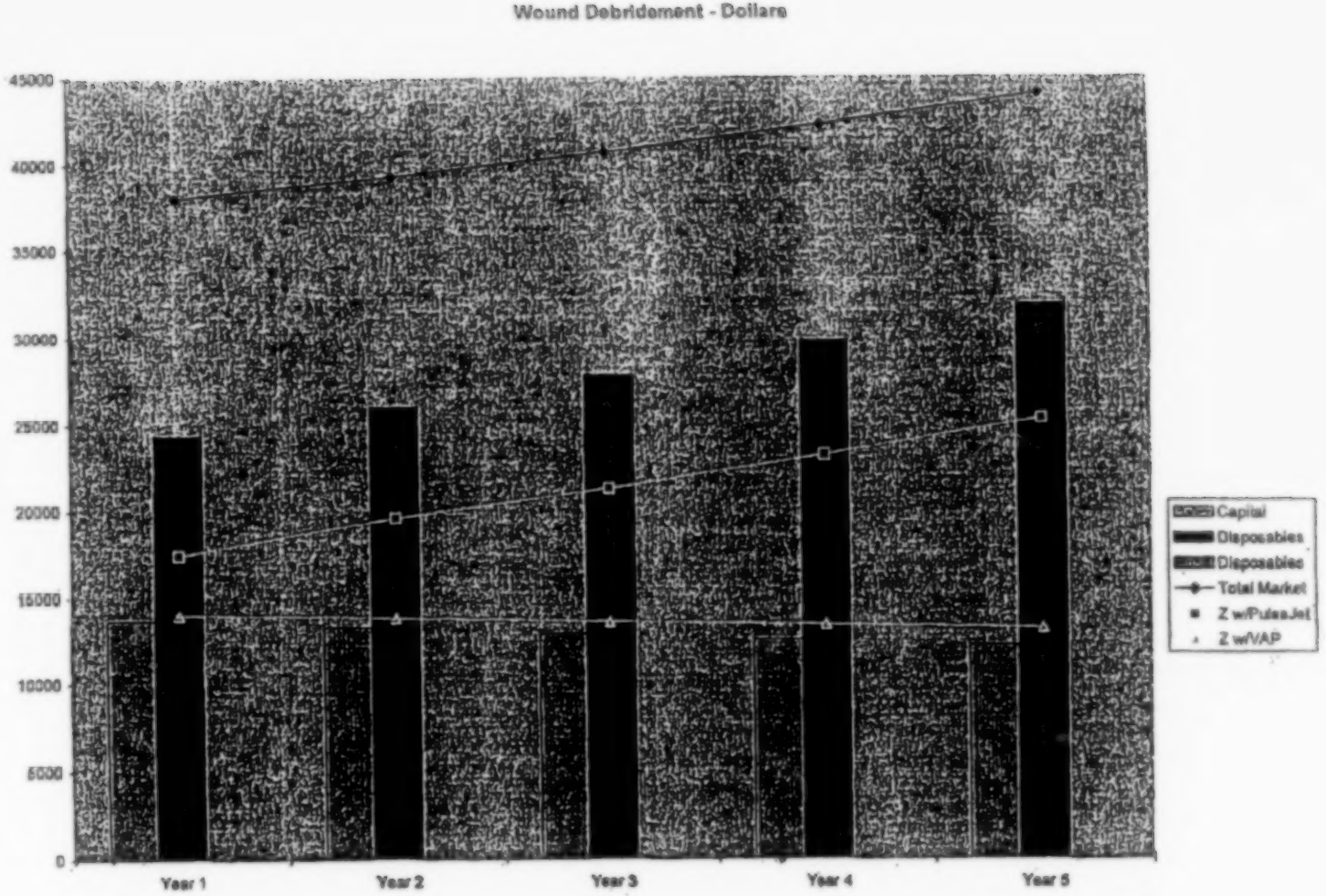
DESCRIPTION	1998 J	F	M	A	M	J	J	A	S	O	N	D	TOTAL 1998	1999 J	F	M	A	M	J	J	A	S	O	N	D	TOTAL 1999	TOTAL $16.00 Target
Program Manager - D8	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6	0.5	0.6	0.6	1.0	7.7	0.8	0.3	0.3	0.2	0.2	0.1							1.9	9.6
Manufacturing Engineer - D5	0.0	0.0	0.2	0.2	0.2	0.2	0.3	0.4	0.8	0.8	0.8	0.8	4.0	0.4	0.3	0.2	0.1	0.1								1.1	5.1
Drafting	0.0	0.0	0.8	0.8	0.8	0.4	0.3	0.3	0.2	0.3	0.3	0.2	4.3	0.2	0.1	0.1										0.4	4.7
Technician	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.7	0.8	1.0	7.2	1.0	0.5	0.3	0.1									1.9	9.1
	(used $ 6,500/mo fir rate)											Sub-Total	$180,800												Sub-Total	$40,280	$191,080
Testing Costs													$300,000														300,000.0
Fixture Costs (x4g)													$3,500														3,500.0
Testing Costs (Toxicity / Biocompatibility)													$6,000													$1,000	6,000.0
Prototype Costs (Field Eval. / Validation)													$40,000														40,000.0
Travel Costs													$8,000													$9,500	$17,500
Outside Design													$1,000														1,000.0
												Sub-Total	$367,500												Sub-Total	$10,500	$368,000
TOTAL COSTS													$468,300													$50,780	$559,080
Note: No cost estimate for support groups.																											

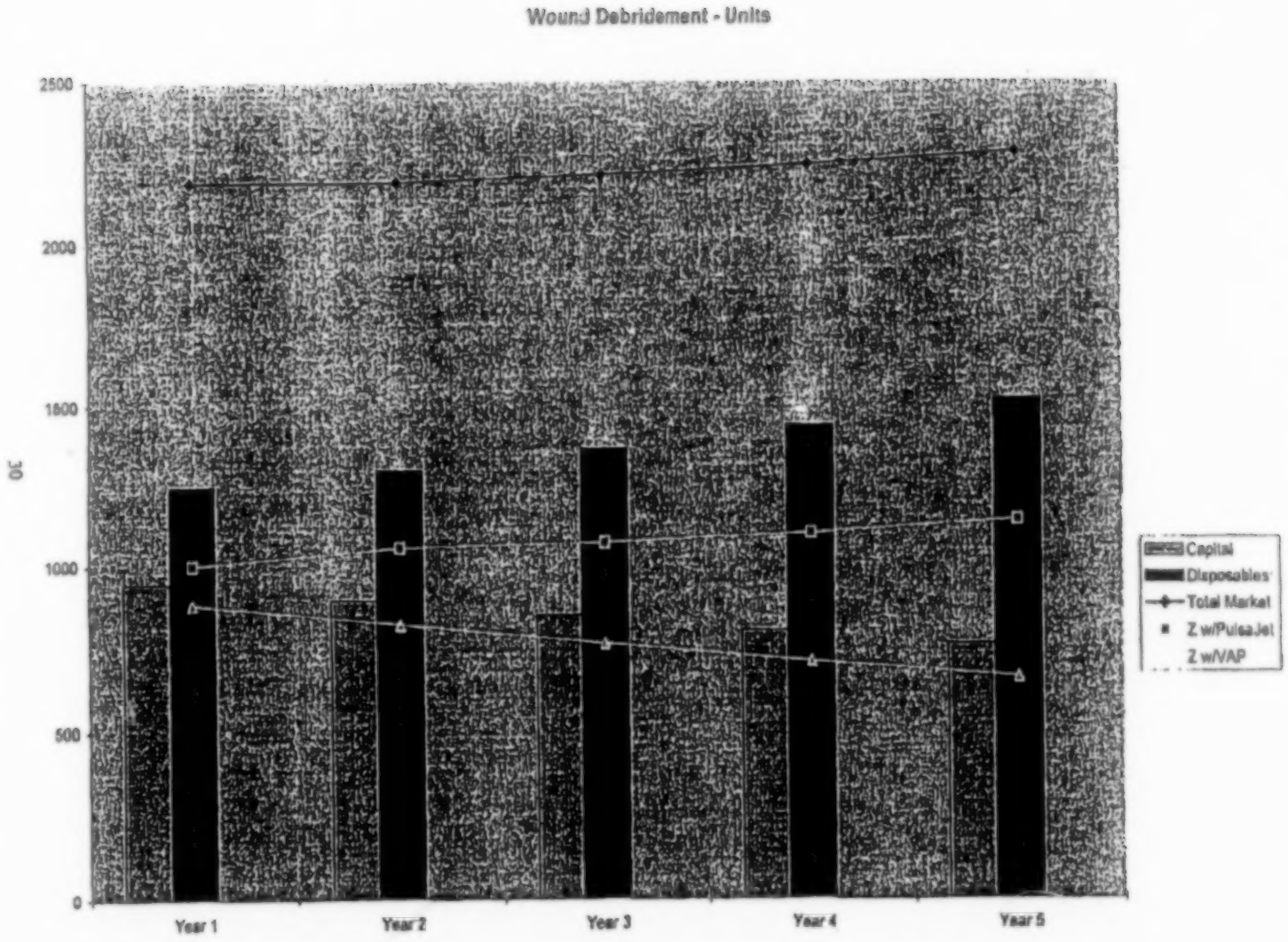
PulsaJet
$16.00 Target Cost
Estimated "Worst Case" DEVELOPMENT COSTS

DESCRIPTION	1998 J	F	M	A	M	J	J	A	S	O	N	D	TOTAL 1998	1999 J	F	M	A	M	J	J	A	S	O	N	D	TOTAL 1999	TOTAL $16.00
Program Manager - DB	0.0	0.0	1.0	1.0	1.0	1.0	0.8	0.8	0.8	0.8	0.8	1.0	8.9	1.0	1.0	1.0	0.8	0.8	0.4	0.2	0.1	0.1				5.2	14.1
Manufacturing Engineer - DB	0.0	0.0	0.5	0.5	0.5	0.8	0.8	0.8	0.8	0.7	0.8	1.0	8.3	1.0	0.8	1.0	0.8	0.3	0.3	0.2	0.1					4.3	10.6
Drafting	0.0	0.0	1.0	1.0	1.0	1.0	0.8	0.3	0.3	0.3	0.3	0.5	6.5	1.0	0.4	0.3	0.1									1.8	8.3
Technician	0.0	0.0	1.0	1.0	1.0	1.0	0.8	0.8	0.8	0.8	1.0	1.0	8.9	1.0	1.0	0.5	0.2	0.2	0.1							3.0	11.9
	(used $ 6,500/mo lbr rate)									Sub-Total			$199,875										Sub-Total			$106,880	$307,256
Tooling Costs													$475,000														475,000.0
Fixture Costs (Mfg)													67,500														7,500.0
Testing Costs (Toxicity / Biocompatibility)													$12,500														12,500.0
Prototype Costs (Field Eval. / Validation)													$45,000													$7,000	52,000.0
Travel Costs													$12,000													$15,000	$27,000
Outside Design													$15,000														15,000.0
										Sub-Total			$667,000										Sub-Total			$22,000	$589,000
TOTAL COSTS													**$766,875**													**$130,880**	**$896,256**
Note: No cost estimate for support groups																											


Pulsa.Jet
March 11, 1998
ID
Task Name
Start
Finish
Feasibility
Marketing Brief
Review Competitive Product
Patent Review
Field Research
Business Case
Project Approval
Officially Begin Development
Development + Design
Design Piston
Prototype Bellows/Piston
Design Gear Train
Prototype Gear Train
Design Valving
Prototype Valving
Design Terminals
Prototype Terminals
Design Trigger
Prototype Trigger
Design Handpiece
Prototype Handpiece
Functional Unit
Outside Evaluation of Design
Design Tips
Prototype Tips
Packaging
Design Packaging
Prototype Packaging
Packaging Validation
Tooling
Bellows/Piston Tooling
Gear Molds
Valve Housing Molds
Trigger Molds
Terminal Tooling
Project Manager: Tim Donaldson
26


Pulse.Net
March 11, 1998
Q97
1Q98
2Q98
3Q98
4Q98
1Q99
2Q99
Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul
ID
Task Name
Start
Finish
Hemipiece Molds 8/20/98 11/25/98
Nozzle (Tip) Molds 10/1/98 1/5/99
Sample Molds 8/26/98 1/19/99
Production Quality Units 1/18/99 1/19/99
Sonic Welding Tooling 9/8/98 8/17/99
Tray Tooling 9/17/98 11/25/98
Pilot Run 1/28/99 3/2/99
Build Samples 1/20/99 1/25/99
Sterilize Samples 1/27/99 2/1/99
Test Samples 2/17/99 3/2/99
Design Validation 10/1/98 4/7/99
Materials Biocompatibility 10/1/98 11/25/98
Design Review 3/3/99 3/3/99
Field Evaluation 3/4/99 4/7/99
Decontamination 1/14/98 4/14/99
51000 Analysis 4/10/98 5/7/98
Risk Analysis 4/10/98 12/11/98
Test Protocol 12/10/98 1/5/99
Field Evaluation Protocol 1/14/98 2/10/98
Design Outputs 4/6/99 4/13/99
Design Assurance Closure 4/13/99 4/14/99
Project Release Checklist 4/15/99 4/16/99
Productions 4/19/99 6/1/99
Build Inventory 4/19/99 6/1/99
Release 6/1/99 6/1/99
6/1


Wound Debridement - Dollars
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
Year 1
Year 2
Year 3
Year 4
Year 5
Capital
Disposables
Disposables
Total Market
Z w/PulseJet
Z w/VAP


Wound Debridement - Units
2500
2000
1500
1000
500
0
Year 1
Year 2
Year 3
Year 4
Year 5
Capital
Disposables
Total Market
Z w/PulseJet
Z w/VAP

BATTERY PULSAVAC

TOTAL NUMBERS FOR ALL SPREADSHEETS=U.S. ONLY

YEAR 1	M1*	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	TOTAL
TRAYS	495	488	488	488	498	496	496	501	511	511	519	519	6008
COMP. KITS	679	479	479	479	480	480	480	481	481	481	483	486	5968
ORTHO. TIPS	357	245	243	243	245	243	243	245	243	243	245	243	3038

* =GENERAL RELEASE DATE
=NUMBERS BASED ON 1998 SALES DATA
=NUMBERS ARE REPRESENTED IN BOXES FOR NEW SYSTEM
=Evaluation samples=2000 each: 750=Fan Spray Kit; 750 Shower Spray Kit; 500 Hip Kit

DESCRIPTIONS:		
TRAYS: (W/TIPS)	COMP. KITS: (W/O TIPS)	TIPS:
5150-100	5150-20	5150-75
5150-101	5150-25	-95
5150-200	5150-36	-82
5150-775	5150-300	-83
5150-795	5150-301	-84
5150-782	5150-720	-81
		-85

PULSAVAC AT RISK

YEAR 1 *(210 ACCOUNTS)*	M1*	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	TOTAL
TRAYS	27	27	27	27	27	27	27	27	27	27	27	27	324
COMP. KITS	393	393	393	393	393	393	393	393	393	393	393	393	4716
ORTHO. TIPS	230	230	230	230	230	230	230	230	230	230	230	230	2760

* =GENERAL RELEASE DATE
=NUMBERS BASED ON 1998 SALES DATA

SWAP-OUT PRODUCT

YEAR 1	M1*	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	TOTAL
TRAYS	14												14
COMP. KITS	197												197
ORTHO. TIPS	114												114

* =GENERAL RELEASE DATE
=NUMBERS BASED ON 1998 SALES DATA

VAR-A-PULSE AT RISK

YEAR 1	M1*	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	TOTAL
TRAYS	454	454	454	454	454	454	454	454	454	454	454	454	5448
COMP. KITS	89	84	84	84	84	84	84	84	84	84	84	84	1013
ORTHO. TIPS	13	13	13	13	13	13	13	13	13	13	13	13	156

* =GENERAL RELEASE DATE
=NUMBERS BASED ON 1998 SALES DATA

INCREMENTAL BUSINESS

YEAR 1	M1*	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	TOTAL
TRAYS	0	7	7	7	15	15	15	20	30	30	38	38	222
COMP. KITS	0	2	2	2	3	3	3	4	4	4	6	9	42
ORTHO. TIPS	0	2	0	0	2	0	0	2	0	0	2	0	8

* =GENERAL RELEASE DATE
=NUMBERS BASED ON 1998 SALES DATA

5% increase in forecast on all other new business after general release

INTERNATIONAL BUSINESS

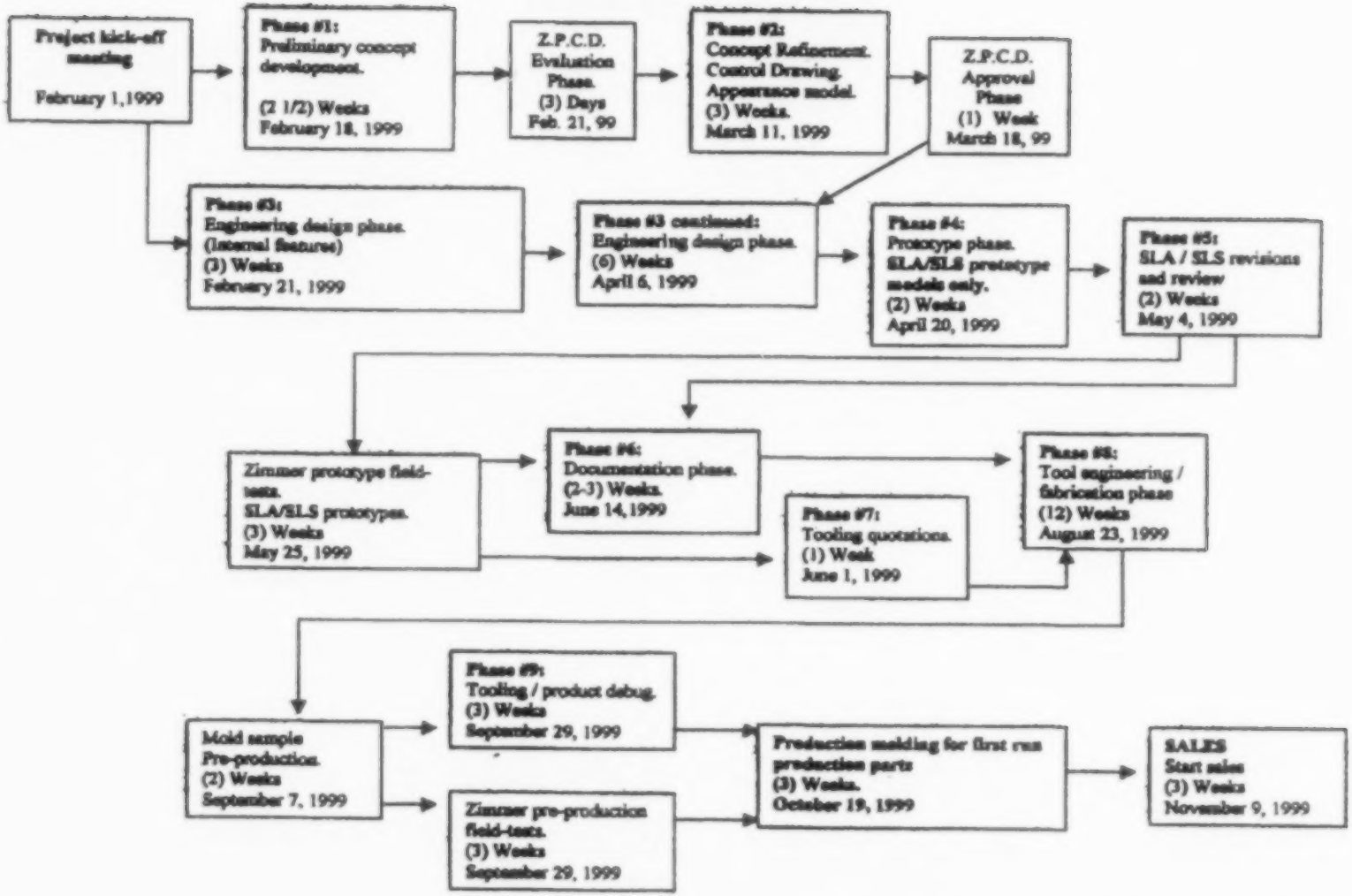
YEAR 1	Feb 20' M1*	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	TOTAL
TRAYS													0
COMP. KITS													0
ORTHO. TIPS													0

INTERNATIONAL + 30%

* = RELEASE DATE FOR REGIONS

REGIONS:												
CANADA	X											
AUSTRALIA/NZ	X											
EUROPE	X											
KOREA							X					
TAIWAN							X					
JAPAN					X							
SINGAPORE/ REST OF ASIA	X											
LATIN AMERICA	X											
CEE/EXPORT COUNTRIES	X											

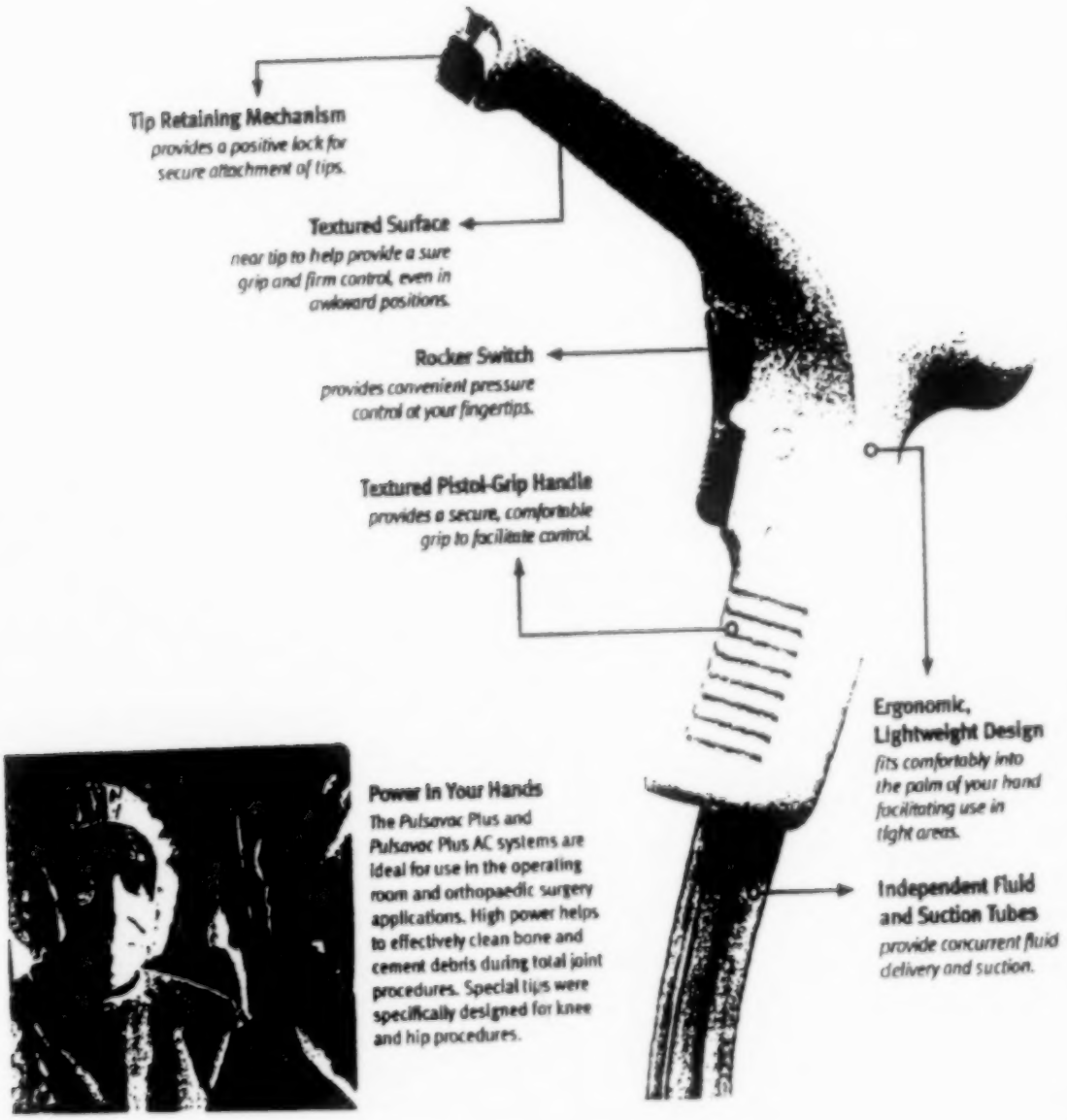
VAR-A-PULSE Time Line:



PLAINTIFF'S
EXHIBIT
21
zimmer

Pulsavac® Plus Family

The *Pulsavac*® Plus, *Pulsavac* Plus LP and *Pulsavac* Plus AC wound debridement systems offer versatile solutions to wound irrigation, wound cleaning and therapy. Three models, featuring lightweight design and trigger-controlled pressure settings, offer a powerful cleaning action for bone or a gentle lavage for soft tissue. Concurrent suction and irrigation help to thoroughly remove debris and contaminants without flooding the field. The *Pulsavac* Plus and *Pulsavac* Plus AC are systems for use in orthopaedic and trauma cases. The *Pulsavac* Plus LP provides gentle lavage for soft tissue debridement.


Tip Retaining Mechanism
provides a positive lock for secure attachment of tips.
Textured Surface
near tip to help provide a sure grip and firm control, even in awkward positions.
Rocker Switch
provides convenient pressure control at your fingertips.
Textured Pistol-Grip Handle
provides a secure, comfortable grip to facilitate control.
Ergonomic, Lightweight Design
fits comfortably into the palm of your hand facilitating use in tight areas.
Independent Fluid and Suction Tubes
provide concurrent fluid delivery and suction.

Power In Your Hands

The *Pulsavac* Plus and *Pulsavac* Plus AC systems are ideal for use in the operating room and orthopaedic surgery applications. High power helps to effectively clean bone and cement debris during total joint procedures. Special tips were specifically designed for knee and hip procedures.

Combines convenience and power for smooth, efficient pulsative irrigation and debridement. The external battery pack hangs outside the sterile field, and the variety of tips and trigger-controlled pressure offers either powerful cleaning or gentle lavage. The primary application site is the operating room for orthopaedic surgery. *Pulsavac* Plus operates on eight AA batteries.

Reusable AC Adapter eliminates the need for alkaline batteries, reducing the amount of waste.

Pulsavac Plus AC •

An environmentally-friendly option. The reusable AC Adapter Power Pack must be purchased separately. This system completely eliminates the need for alkaline batteries.

Pulsavac Plus LP •

This low pressure system delivers an adjustable, gentle lavage for wound cleaning and therapies and is an excellent alternative to traditional whirlpool therapy treatments. Primary application may occur in the OR, ER, wound care clinics, nursing homes or long-term care facilities. Therapy can be done in the patient's room or at the patient's home.

Low Pressure Debridement Tip Only

• 08-5150-186-00 Flexible Tip, 10.5 inch length

Debridement tips include the dual-cone splash shield, designed to minimize splashback and help control the dangers associated with translucent spray.

The color coded dots to the left of the tips indicate system compatibility.

•• 08-5150-175-00 High Capacity Fan Spray w/Splash Shield, 12.7cm length
08-5150-375-00 Without Splash Shield

• 08-5150-176-00 High Capacity Fan Spray w/Filter

•• 08-5150-195-00 High Capacity Shower Spray w/Splash Shield, 12.7cm length
08-5150-395-00 Without Splash Shield

• 08-5150-045-00 High Capacity Wide Single Stream, 7.2cm length

• 08-5150-181-00 High Capacity Four Orifices, 20.32cm x 1.27cm

• 08-5150-183-00 High Capacity Radial Spray, 22.86cm x .89cm

• 08-5150-183-09 High Capacity Brush Tip Radial Spray, 22.86cm x .88cm x 1.52cm

• 08-5150-184-00 High Capacity Hip Revision Tip, 23cm length

• 08-5150-185-00 High Capacity Four Orifices, 30.48cm x 1.27cm

• 08-5150-187-00 High Capacity Fitted Plateau Brush Tip, 7cm length

• 08-5150-145-00 High Capacity Adjustable Length w/Splash Shield

• 08-5150-155-00 High Capacity Single Stream, w/Splash Shield, 12.7cm length

Ordering Information

Prod. No.	Description
00-5150-420-00	*Pulsavac* Plus Component Kit
00-5150-475-00	*Pulsavac* Plus Fan Kit
00-5150-482-00	*Pulsavac* Plus Hip Kit
00-5150-495-00	*Pulsavac* Plus Shower Kit

Prod. No.	Description
00-5150-420-01	*Pulsavac* Plus Component Kit
00-5150-475-01	*Pulsavac* Plus Fan Kit
00-5150-482-01	*Pulsavac* Plus Hip Kit
00-5150-495-01	*Pulsavac* Plus Shower Kit

Prod. No.	Description
00-5150-350-00	*Pulsavac* Plus AC Power Supply (US)
00-5150-426-01	*Pulsavac* Plus AC Component Kit
00-5150-476-01	*Pulsavac* Plus AC Fan Spray Kit
00-5150-486-01	*Pulsavac* Plus AC Hip Kit
00-5150-496-01	*Pulsavac* Plus AC Shower Spray Kit

Prod. No.	Description
00-5150-920-00	*Pulsavac* Plus LP Component Kit
00-5150-975-00	*Pulsavac* Plus LP Fan Spray Kit
00-5150-995-00	*Pulsavac* Plus LP Shower Spray Kit

Prod. No.	Description
00-5150-175-00	High Capacity Fan Spray w/Splash Shield, 12.7cm length
00-5150-176-00	High Capacity Fan Spray w/Filter
00-5150-195-00	High Capacity Shower Spray w/Splash Shield, 12.7cm length
00-5150-375-00	High Capacity Fan Spray w/out Splash Shield, 10cm length
00-5150-395-00	High Capacity Shower Spray w/out Splash Shield, 10cm length

Prod. No.	Description
00-5150-155-00	High Capacity Single Stream Tip w/Splash Shield, 12.7cm length
00-5150-065-00	Large Fluid Orifice Tip w/Wide Single Stream, 7.2cm length

Prod. No.	Description
00-5150-181-00	High Capacity IM Tip Four Orifices, 20.32cm x 1.27cm
00-5150-182-00	High Capacity IM Tip w/Radial Spray, 22.86cm x .89cm
00-5150-183-00	High Capacity IM Brush Tip w/Radial Spray, 22.86cm x .89cm x 1.52cm
00-5150-184-00	High Capacity IM Hip Revision Tip, 23cm length
00-5150-185-00	High Capacity IM Tip Four Orifices, 30.48cm x 1.27cm
00-5150-187-00	High Capacity Tibial Plateau Brush Tip, 7cm length

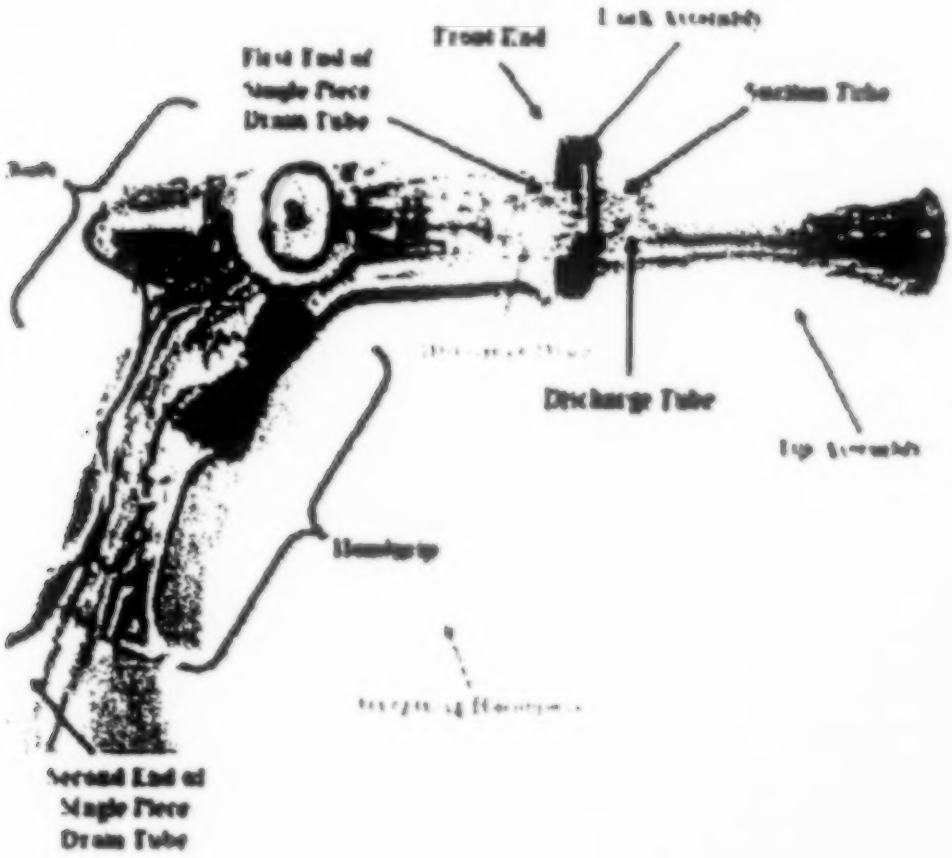
Prod. No.	Description
00-5150-145-00	High Capacity Adjustable Length Tip w/Splash Shield
00-5150-186-00	Flexible Tip, 10.5 inch length

Prod. No.	Description
00-5150-188-00	18cm Splash Shield
00-5150-189-00	23cm Splash Shield

zimmer

[illegible]

Stryker's Infringement Contentions



		ANTICIPATED?		OBVIOUS?	
1.	Claim 2 of the '329 Patent	____Yes	X No	____Yes	X No
2.	Claim 45 of the '807 Patent	____Yes	X No	____Yes	X No
3.	Claim 50 of the '807 Patent	____Yes	X No	____Yes	X No
4.	Claim 51 of the '807 Patent	____Yes	X No	____Yes	X No
5.	Claim 52 of the '807 Patent	____Yes	X No	____Yes	X No
6.	Claim 1 of the '383 Patent			____Yes	X No
7.	Claim 2 of the '383 Patent			____Yes	X No
8.	Claim 3 of the '383 Patent			____Yes	X No
9.	Claim 8 of the '383 Patent			____Yes	X No
10.	Claim 10 of the '383 Patent			____Yes	X No
11.	Claim 11 of the '383 Patent			____Yes	X No
12.	Claim 13 of the '383 Patent			____Yes	X No

		OBVIOUS?	
13.	Claim 17 of the '383 Patent	____ Yes	X No
14.	Claim 19 of the '383 Patent	____ Yes	X No
15	Claim 20 of the '383 Patent	____ Yes	X No
16.	Claim 22 of the '383 Patent	____ Yes	X No
17.	Claim 24 of the '383 Patent	____ Yes	X No
18.	Claim 27 of the '383 Patent	____ Yes	X No
19.	Claim 38 of the '383 Patent	____ Yes	X No
20.	Claim 40 of the '383 Patent	____ Yes	X No
21.	Claim 46 of the '383 Patent	____ Yes	X No

If you answered "Yes," enter the dollar amount you find Stryker has proved by a preponderance of the evidence it is entitled to recover as lost profits:

$ 70 MILLION

!. What is the reasonable royalty rate (in percent) that you find Stryker has proven by a preponderance of the evidence should apply to any covered sales of infringing products by Zimmer, assuming validity and infringement of all three patents in suit?

25 % (Double initial percentage of Davol license as we felt 32.2% was too high)

3. What is the dollar amount of sales by Zimmer to which you find Stryker has proven by a preponderance of the evidence the reasonable royalty rate should apply, assuming validity and infringement of all three patents in suit?

$ 254,823,154

a. Do you find that the dollar amount of sales to which the reasonable royalty rate should apply would be any different if fewer than all three of the patents in suit are valid and infringed?

X Yes _____ No

b. If "no," skip to the next question. If "yes," what is the dollar amount of sales by Zimmer to which you find Stryker has established by a preponderance of the evidence the reasonable royalty rate should apply for each of the patents in suit individually?

$ 254,823,154 assuming that only the '329 patent is valid and infringed

$ 254,823,154 assuming that only the '807 patent is valid and infringed

$ 163,647,429.50 assuming that only the '383 patent is valid and infringed

SIGNATURE BLOCK

We, the jury, unanimously return this verdict form as our verdict in the case:

Date: February 5, 2013 — Jury Foreperson

Date: 2/05/13

Date: 2/5/13

Date: 2/5/13

Date: 2-5-13

Date: 2/05/13

Date: 2-5-13

Date: 2-5-13

can we see all of the physical devices? claim charts as well

3:30
2-4-13
#1

Would it be possible to have the large claim charts in the jury room to present and view all at once as a group?

2:9-13
4.40

(#2)

Were no where near a conclusion. See you tomorrow

2-4-13
4.50

#3

Is there a copy of Mrs Lawton's Full report that we can reference?

Also, [redacted] would it be possible to watch the "Rick May" deposition video again?

#3 12:05 2-5-13

Are we allowed to come up with our own figures for either lost profits amounts or reasonable royalty, i.e, come to a compromise?

If we find one claim of several ~~was~~ obvious, does that make the #4 <u>whole</u> patent invalid?

12:30 #4 2-5-13

We have come to a conclusion and filled out the verdict form.

1:50 pm
2-5-13
#5